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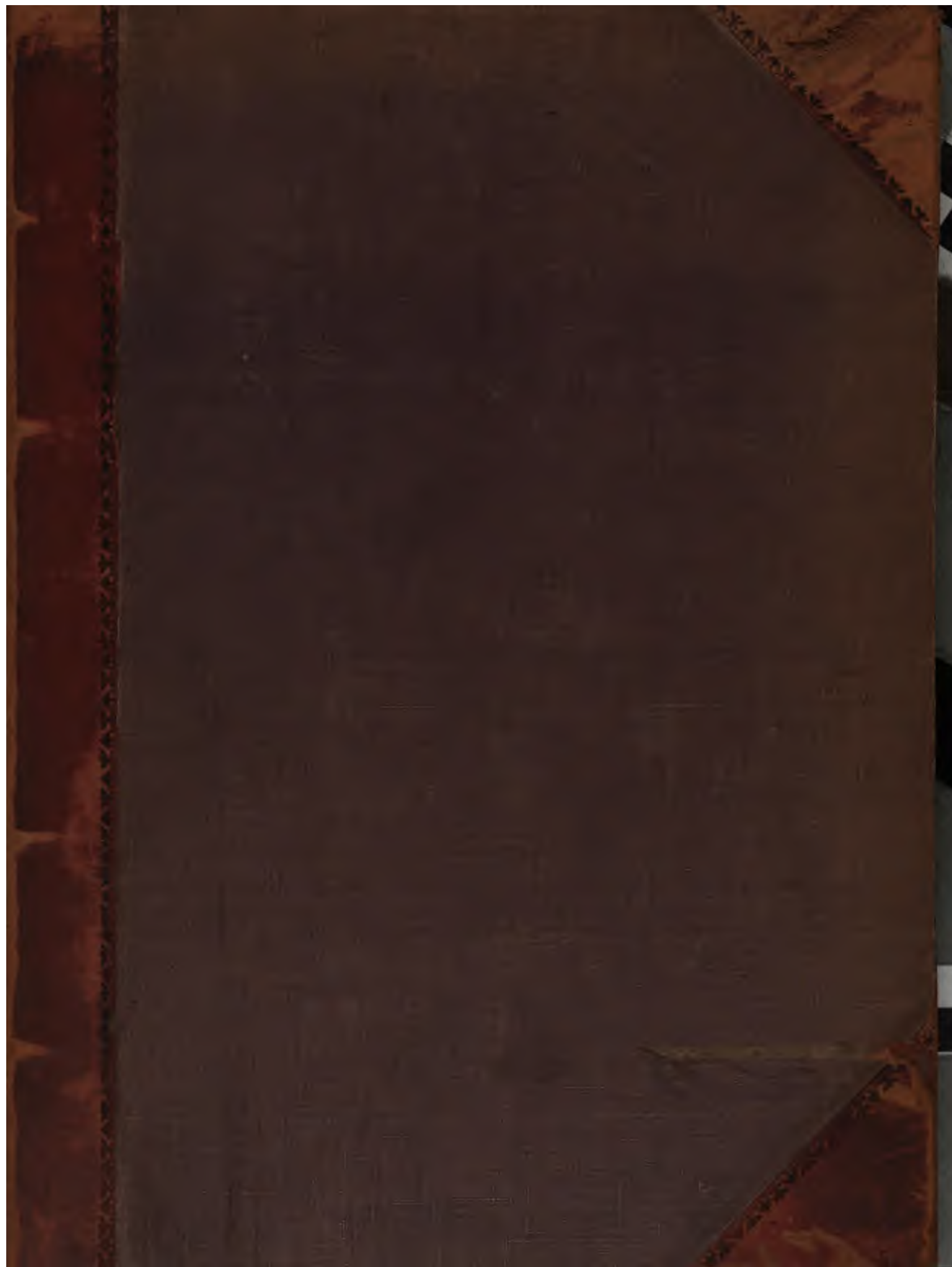
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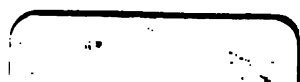
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THE PEOPLE'S ILLUSTRATED JOURNAL

OF

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AND

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THE PEOPLE'S ILLUSTRATED JOURNAL

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Arts, Manufactures, Practical Science, Literature, and Social Economy.

I.

SATURDAY, MAY 1, 1852.

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THE PALACE OF WESTMINSTER.

HISTORICAL SKETCH OF THE OLD PALACE OF WESTMINSTER.

magnificent structure, now advancing towards completion, already so far finished as to be applicable to the main of its erection,—the business of the Legislature,—(the y details and external features only being yet incomplete)

presents itself strikingly as the most worthy subject of illustration in a work devoted to the arts and industry of the age. The building itself is by far the most extensive and elaborate,—we may add the most costly, work of architecture which has been undertaken in modern times. The purposes to which it is devoted are the most important of all that concern, at this moment, not only the well-being and greatness of the British people, but the freedom, the prosperity, and progress of the human race. The



THE NEW PALACE OF WESTMINSTER—RIVER FRONT.

will, in a few years to come, be more hallowed in the veneration of Europe than it has hitherto been in the estimation of archaeologists; for when at length the *representative* principle, lose of the present sanguinary and fluctuating, but not struggle, shall have conquered finally the *despotic*, and the ional form, created in Britain and upon this same spot, shall n adopted throughout the civilised world, the thoughts of will turn with reverence and admiration to that British

institution by which the great problem of rational liberty has been practically solved for the instruction and guidance of progressing nations.

This has been the site of a palace from immemorial times. The first parliament that assembled here met the king in the great palatial hall of Rufus, now called Westminster Hall; and here was a royal residence ages before parliaments were thought of,—at least in their present name, form, or operative faculty. Even if it be conceded that the Saxon Wittenagemote was a *representative* institution, and that upon its basis

parliaments were gradually constructed to their present organisation, it is still certain that such a body had no permanent functions, continuous existence, or determinate revivals, under the Saxon kings in England; whereas there is abundant proof that the Saxon rulers of this part of the island fixed their residence here, at Westminster, very early after their settlement; and it is most probable that, before them, the British order of princes or kings whom they displaced in this district held their court in the same locality.

Alfred at one time held his court in this palace, and Edward the Confessor died there, in the apartment generally known as the Painted Chamber, and used, after the destruction of the late House of Lords, in 1834, for the sittings of the Peers. That chamber is said to have been also the sleeping-room of Alfred,—the king and his family occupying an elevated portion at the eastern end, whilst his body-guard and attendants reposed in the western portion. The chamber is spoken of by the Norman and early English writers as St. Edward's Hall, and the palace itself as King (or St.) Edward's. But there is no mention of his having built it; whereas if he had done so, it is not possible that the mention should have been omitted, when so much was written of his erecting the great Abbey adjoining, of which he was the founder, upon the site of the ancient church of St. Peter. We have, in truth, no mention whatever of the first erection of the palace; and the inference is reasonable that it was of greater antiquity than the church of St. Peter.

At the present day, the choice of this spot for a palatial residence would seem absurd and unaccountable. Such it would really be (if not impossible) at any time, had the condition of the site been always such as we see it now. But that was not the case. It is not to be supposed that Rufus would have built his great Hall on such a site, had it been then so much subject to flooding of the river as it has since become. The truth is, that the tidal part of the river was anciently much wider and shallower, so that it spread over the lowlands of Surrey and of Kent opposite to London, as well as those at the base of the elevation upon which the original British town or fortification, or both, of Llyndyn (London), the "Town of the Lakes," was erected, and its waters presented there the appearance signified in the Gaelic name of the city. The Isle of Thorney—as the spot where the Abbey, the Palace, and its accessory buildings were erected was called by the Saxons—was high in comparison to the opposite bank, over which the high tides and rain floods or freshes poured the excessive waters, leaving the wooded (perhaps but *thorn-grown*) isle undeluged and without hurt. The character of the country along the left bank of the river, from this place upwards for miles, allows us to suppose that Thorney Isle, in those circumstances, was not without some attractions for a royal residence, such as at a later period were found in Chelsea, Kew, and Hampton. The protection of the opposite lands by embankment has thrown an equal share of the river's assaults to be borne by modern Thorney; and the consequences of that forced impartiality of the flooded Father, whose stream is raised very much higher at the tide, by the narrowing of the channel, have been seriously felt by the denizens and frequenters of Thorney in later times. The floor of Westminster Hall has frequently been so deeply flooded that the lawyers and the judges, suitors and witnesses, were conveyed to the courts in boats; and the original pavement, which in the time of Rufus was sufficiently "high and dry," was of necessity raised so much to keep it above the invading floods as greatly to impair the grandeur of the Hall, by diminishing the height and destroying the proportions. Improved drainage and securities against the waters have enabled the architect of the New Palace to restore the proportions a good deal, by lowering the floor to nearly its original depth.

This Thorney Isle is described as a delta, or triangular piece of land, isolated and shaped by two branches of a stream, which was divided (or forked) by the apex of the island, at a considerable distance from the Thames, near Tothill-fields,—the one branch flowing into the Thames, somewhere above or about the Horseferry Road, the other joining the river near the site of the present Westminster Bridge. We believe that the alterations which have taken place in the course, depth, and form of these boundaries, by the formation of sewers, and the foundations of the buildings which now crowd the island and all the land around it, have not altogether obliterated those natural boundaries of the famed and almost sacred Thorney.

The first name by which the Royal Palace in Thorney is distinctly spoken of in history, is that of "King Edward's Palace." The only apartment in it of which any historical mention is made, was that long known as St. Edward's Hall, a name which it bore from the time of the Confessor's canonisation down to the year 1800. In that year, the

building undergoing certain repairs and refitments, the panelled wainscoting, some centuries old, was removed, and the wall beneath was found to be covered with antique paintings in oil! It is now put beyond dispute, that those pictures of the feats of the Maccabees were executed, before the time of Edward the First, who added to the collection some others illustrative of events in his own life, and has left after him an account of the several sums it cost him to repair the earlier paintings. The roll containing these interesting particulars bears the date of the 20th year of his reign, nearly a century before the time of Van Eyck (about the year 1410), to whom the discovery of the art of painting in oil has long been almost universally attributed.

We sometimes find this painted chamber designated by the name of the "White Hall," and it also appears to have been simply called "The Hall," as being the great hall of the palace; until the sanctified Confessor died there, when popular veneration distinguished it by the prefix of his title, naming it first "King Edward's Hall," and afterwards, when the Church had assigned him a place in the calendar, "Saint Edward's Hall." The portions of wall, which were standing as late as 1850, measured nearly five feet in thickness, and were moreover of such excellent masonry that they might have stood for ages, or until that anticipated day when the Malay missionary from New Zealand shall sketch his view of "St. Paul's in Ruins," from the last remaining pier of London Bridge.

The Hall, though magnificent for its time and purposes, and spacious enough to lodge the person, family, and household of the illustrious Alfred, was not great enough for the festive gatherings, the court assemblies, or the carousals of the Confessor's third successor, William Rufus. The brief reign of Harold, from the time of his coronation at Westminster to the day of his death at Senlac (since called Battle), was almost wholly occupied in Northumbria. William, the first Norman, usually styled the Conqueror, knew full well that the Saxon atmosphere of the Thorney Isle was not congenial, and he established his court, under shelter of the White Tower of Julius Cæsar, within the fortifications of King Lud. He considerably enlarged and strengthened the Tower of London, whilst it was his royal residence.

But the next reign furnishes us with unmistakable evidence that the Isle of Thorney was only horrid in the Latin sense of "rough" with brush and underwood, and that it retained, in the days of Rufus, some of those glories, the debasement of which, by the Pagan Saxons of the sixth century, is piteously lamented by the good old monk John Flete. The passion of the second Norman for the chase, and for that kind of boisterous life which can be enjoyed only in the country, rendered the rustic situation of King Edward's Palace, at Westminster, more attractive to him than the fortified Palace of the Conqueror, beyond the City. But the Hall of St. Edward had not space enough for his great, and, it is said, riotous entertainments, wherefore he built (about A.D. 1090) the magnificent Hall which has stood for eight hundred years so many perils of fire and flood, of mobs and renovators, and now, despite the assaults of modern art and the spirit of improvement, stands a glorious example of the scientific skill and tasteful genius of the monk architects of the eleventh century. He did not, however, complete it to exactly its present dimensions; for Richard the Second had the walls carried up two feet above the original height, the length having been increased. This monarch, in the year 1397, built the admired north front and porch, after the design of one Master Henry Zensely. This handsome work of Zensely was restored under the direction of King George the Fourth to its present appearance.

Nearly half a century after the time of Rufus, or somewhere about the year 1140, King Stephen is said to have added to the Old Palace a chapel dedicated to his patron Saint. It is more probable that he repaired or enlarged an old chapel previously attached to the Palace, and gave it his saint's name; for it is not likely that Edward the Confessor, or his pious predecessors, were without one. In its place, however, Edward the First, somewhat more than a century later, erected, but did not finish, a new chapel upon the same site. This king lived only to see the completion of the *crypt*, (or under-chapel for interments,) which, happily for all good taste, escaped the great fire of 1834, and stands a charming memorial of the excellence which English architecture had attained in that, its golden, age.

The Chapel was not finished until late in the reign of Edward the Third; but when completed, it was the very GEM of Gothic Architecture. The beauty of the exterior, and its perfection as a whole were matchless. Whoever may have the good fortune to see the late Mr. Cottingham's "Model of St. Stephen's Chapel Restored," and that gentleman's admirable drawings of the interior, can form a tolerable estimate of the unrivalled merit of this exquisite work of the fourteenth

Century. It was (except, as we have said, the crypt) destroyed by the fire of 1834; and upon its site, over the crypt, is now erected St. Stephen's Hall. We do not learn of any other additions to the Palace of Westminster, except those of Henry the Third, of whose works in this place we have remaining only the cloisters, if, indeed, we and others are right in attributing them to that monarch, who certainly did build in the Palace, as well as carry on Edward the First's unfinished work at the Abbey. They are attributed to Henry the Eighth, but have very little to reconcile them to that monarch's age and taste. We think the probability is, that they were originally built in connexion with the Royal and Collegiate Chapel of St. Stephen,—that they were rebuilt, nearly as they now stand, by Henry the Third, when his architects were busy upon the Abbey, and that they were repaired or restored in the time of Henry the Eighth, who thence has got the reputation of a work far too chaste and beautiful for the period in which he lived. The character is before and far above the age of the Reformation. We speak, here, of the *cloisters*, not of the external walls in the "cloister court," which are undoubtedly of Henry the Eighth, and are beautiful specimens of the time.

With reference to the last-mentioned relics of the Old Palace, a learned architect and able critic, writing in "Weale's London," says:—"The visitor of this pile will, of course, not neglect either of its three beautiful relics of other times,—the chapel crypt, descended from the glorious days of Edward the First; the hall that the last of a long dynasty built to be the scene of his own fall," (Richard the Second, who *enlarged and finished*, but not *built* the Hall of Rufus, was tried and deposed in it); "and the cloisters of Henry the Eighth adjoining both. The first and last, indeed, are small works, and almost buried, but no less than their grand neighbour are they historically and artistically precious; and this not as recording the quaint fashion of distant periods. No; their differences lie far deeper than fits of fashion; they mark each an epoch in the progress of our taste. A happy and, we cannot but think, *singular* coincidence has preserved in this spot three eminently typical specimens of English Art: one fragment—the Crypt—from about the end of its age of sterling gold, when it had attained the climax of pretenceless excellence. Another monument—the Hall. The third is the Cloister, the very best unadorned production of indigenous English Art."

History is silent with respect to the locality or place in which the representatives of the country first met. It is, however, clear, that our parliament had a regular organisation and a recognised authority three centuries before it was permanently installed in chambers within the precincts of the palace at Westminster. The name of parliament, or, as it was at first written, *parlement*, was first (according to Coke) given to the Great Council of the Nation such as it existed under the successors of Egbert, based upon the ancient institution of the Wittenagemote—by Edward the Confessor, who, having been sheltered during the greater part of his early life at the Norman Court, by Duke Robert, the father of William the Conqueror, greatly affected French manners and speech, as well as French companions. William the Conqueror dispensed with all such councils. Henry the First, indeed, called a general council of the nation to exculpate himself in the minds of his nobles and the people for his conduct to his brother Robert; but on that occasion the foreign term *parlement*, imported by the Norman-loving Confessor, seems to have been dropped. But the systematic construction of a parliament, such as the institution is now-a-days understood to be, was originated by the bold and patriotic Simon de Montfort, who summoned to a council, with the peers, two citizens to represent each city, two burgesses for each borough, and two knights for each shire. Yet the name of parliament was not even then permanently adopted, nor does it appear in any State-paper for thirty years after. We are, however, fully warranted in concluding that from the time of Simon de Montfort, for three centuries, the Commons held their meetings in the Chapter-house of the Benedictines, directly opposite the palace, and adjoining the south-east end of the Abbey. The Lords were accommodated with an apartment in the palace. The first general meeting of parliament, under that name, within the walls of Westminster Palace, was that one which assembled to try Richard the Second, and which deposed him in that same hall which he himself, little more than a year before, had enlarged and adorned. The Chapter-house continued to be used for the Commons House of Parliament until the destruction of the dwelling part of the palace by fire drove Henry the Eighth from Thorney Isle to the neighbouring mansion at Whitehall; and St. Stephen's Chapel, being no longer used by the king, was some time after the fire given up for the accommodation of the Commons, and so it remained their house of parliamentary

meeting until they too were burnt out in 1834, when the country lost the choicest of its architectural treasures, and the world was deprived of the most noble example of Gothic Art, in all the beauty of which it was capable.

II.—GENERAL NOTIONS OF THE NEW PALACE.

The calamity which swept away the priceless Chapel of St. Stephen's, was not altogether like that "ill wind that blows no good," for it swept away also the heterogeneous and unsightly pile of disorderly and almost shapeless structures with which the hasty make-shift and accumulative bad taste of centuries had encumbered and surrounded the remains of the elegant palace of the Saxon Edward and his Norman successors. It caused the necessity of building for the first time an edifice especially *intended* for the use of parliament, and afforded the opportunity of erecting upon the old time-honoured site, where the representative system had grown up to its full strength and perfection, a structure of magnitude and magnificence, proportionate to the grandeur of its destination, and the greatness of the British Nation. The parliament of the day—King, Lords, and Commons, as well as the people at large—saw the advantages of the opportunity and determined to make a worthy use of it. It was resolved to invite all the artists of the empire to a free competition for the design, and there was no limitation set to the expense. The only restrictions imposed upon those competing, were, that the extent of the building should be adapted to the site; that it should contain certain specified accommodation for the legislative bodies, their officers, and the public; and, lastly, that the style should be something that was supposed to be expressed by the term *English*.

No less than *ninety* artists had the spirit to enter into the competition, and amongst the plans submitted by them were many of high excellence, worthy of an artist's fame and of the truly national object. The design selected was that of Mr. (now Sir) Charles Barry. In prosecution of the works it became necessary to construct an artificial embankment or sea-wall, which being in a sufficiently forward state, the first stone of the building was laid on April 28, 1840.

As the river front is the only part of the exterior which is now complete in its entire elevation, and, on account both of its magnitude and unbroken unity of character, will always be regarded as presenting the principal, though not the most picturesque, aspect of the edifice, we have chosen a view of it from the south-east for our first illustration. This *façade* is composed of four distinct parts; a centre, consisting of two pinnacled towers, flanking what here appear to be the principal apartments, with which they form one central mass, scarcely imposing or distinguished enough for the importance of the position; on either side of these is an extensive wing, containing, in the first story over the basement, the libraries and some other apartments of the two Houses, and in the upper story, the committee rooms. These wings, again, are flanked each by a tower-like pavilion, that upon the northern end, next to Westminster Bridge, containing the Speaker's house, whilst the other, at the southern extremity, is appropriated to the residence of the Usher of the Black Rod. The length of this side of the building is 900 feet, the height of the towers is 90 feet, whilst that of the rest of the *façade* is but 70 feet, which strikes most observers as being too low for just proportion to the length. The disparaging effect of such disproportion will, however, be considerably diminished, or modified, when the several towers and spires behind are raised to their intended altitudes, and come into the composition, so as to relieve, by their boldness and variety, the tameness of the present elevation. The original design held out the expectation of a noble terrace or esplanade on the river side, which, bordered with a handsome parapet, and supported by bold projecting buttresses, would have contributed much to the grandeur of the whole, and forestalled, in a great measure, the objections now obvious on the score of tameness and inadequate height. The expectation has not been realised; and, instead of an elegant water-side terrace to a regal edifice, we have a narrow quay of great length, but of ordinary meanness. The plain basement has a double row of flat-pointed windows, enclosed in square mouldings, and occupying but half the space between the buttresses in this story, the rest of which is without tracery or any adornment. In the towers of this *façade* there are three stories of windows, but in the other more extensive but less lofty part there are but two; these, however, occupy nearly all the space between the buttresses, which (as well as every portion of the front not filled with glass) are elaborately enriched, terminating in light pinnacles, thickly adorned with crockets, and, when viewed from a convenient point of sight presenting a very rich and elegant effect. There are but six statues in this front. They represent the chief Apostles, St. Peter and

St. Paul, who are the patron saints of the two great metropolitan churches, and the patron saints:—St. George of England, St. Andrew of Scotland, St. David of Wales, and St. Patrick of Ireland. These are set up in niches of the towered pavilions at each end of the *façade*. In the bands of division, between the stories or tiers of windows, are sculptured the arms of the sovereigns of England from William the Conqueror to Queen Victoria, a work certainly of great artistic elaboration, and very creditably executed, though so minute as to be scarcely recognisable in the details from any point more distant than the terrace beneath. As the early Norman monarchs had no *Supporters*

to their arms, fanciful emblematic figures are gratuitously added to the escutcheons of those preceding Richard the Second, who introduced his favourite device of the White Hart, as supporter to royal arms. Succeeding monarchs varied the supporters, until time of James the First, who introduced the lion and unicorn; these heraldic dignitaries have continued the redoubted supporters of the British arms ever since. It must be observed, that the panel tracery which crowds every possible part of this front, as of every other part of the exterior, is too repetitional in character, and produces at once a frittered and a monotonous effect. The parapet of the whole line



STATUES OF LORD CLARENDON (by W. C. Marshall) and JOHN HAMPDEN (by J. Foley), IN ST. STEPHEN'S HALL.

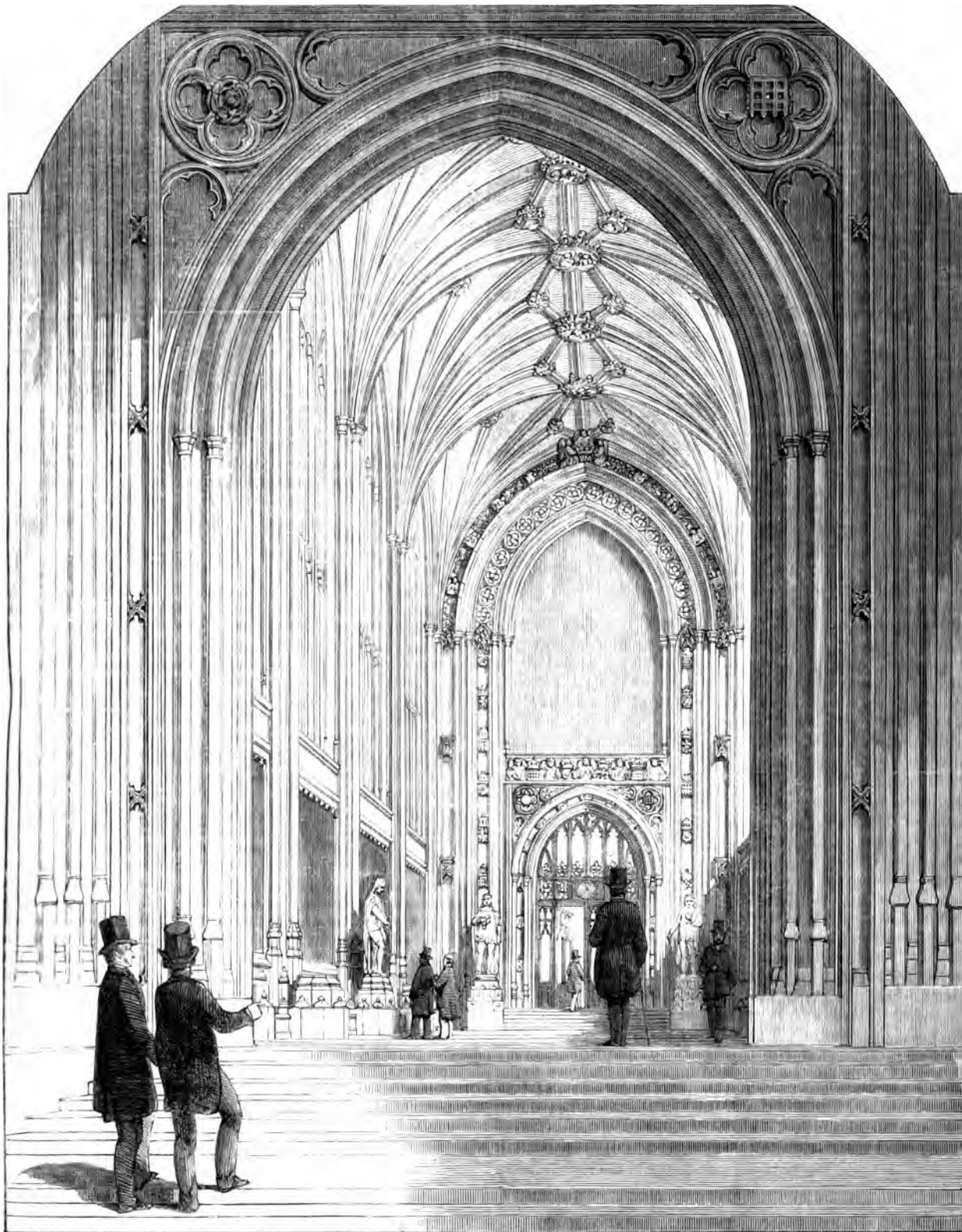
the towers and of the level parts is embattled, the machicolations being richly and elegantly ornate. The roofs, crowned with their fanciful fringe-work, or *creting*, have a toy-like appearance unworthy of the character and proportions of the building.

Something may be expected here as to the description or designation in architectural nomenclature, of the *style* chosen for the building, as exemplified in our illustration. All that Mr. Barry tells us of it is, that in the choice, he avoided "the ecclesiastical, collegiate, castellated, and domestic styles, and selected that which he considered best suited to the peculiar appropriation of the building." But, in point of age, the style is undoubtedly that of Henry the Eighth, and comes under the denomination of "Tudor." A glance at the cloister court, where Mr. Barry has restored all that was fairly the Eighth Henry's, is sufficient to identify the general architecture of the New Palace, with that of the Tudor period. Reserving for a future article a more detailed descrip-

tion of the architectural arrangements, external and internal, we now proceed boldly to introduce the reader to the interior of New Palace at Westminster.

The chief public entrance being through Westminster Hall, let reader place himself in New Palace Yard, at the north end of building, opposite the porch of the Hall, which he will remember originally built by Richard the Second and was last restored by George the Fourth. The porch is flanked by two turrets, beyond the west of which (that to the right of the spectator) towards St. Margaret Street, is the wall forming the northern termination of the Court of Law. North and west of this formerly stood Cotton House, mansion of the celebrated Cotton Library, now in the British Museum. Beyond the eastern turret of the porch (that towards the river) stand the famed Council House and prison of the Star Chamber. Some of the remains, including a strong room or dungeon, were standing in

very lately, and its infamous memory is preserved in association with the Hall upon the east, and separating it from the buildings of the New House of Commons. In this court is the entrance to the strangers'



ST. STEPHEN'S HALL AND ENTRANCE FROM ST. STEPHEN'S PORCH.

gallery in that House. The branch of building stretching northward contains various offices, and forms a boundary of the court-yard to the Speaker's House. It is intended also to be a boundary of a large court to be formed here by the enclosure of New Palace Yard; and the building on the north end will extend from the base of the clock-tower (seen to the left, at the foot of the bridge,) westward to the end of St. Margaret Street, displacing all the houses on the south side of Bridge

Street. The window-shaped space seen at the west end of the clock-tower filled with brick, shows the height, proportions, and point of projection of this contemplated range.

Commencing our route through the building, we enter Westminster Hall, and the stranger is struck with admiration of its beauty, magnitude, and grandeur. Looking up, his eye wanders over the vast and massive framed roof spread above him, unsupported by

pillars, and resting only on the side walls, the lateral pressure of which is "eased" by the hammer beams of this much-admired and beautiful work. The Hall itself is 239 feet in length, and 68 in breadth. The present height of the walls is 90 feet; but Sir C. Barry, in order to restore the building to its natural proportions, the curtailment of which totally mars its beauty as a whole composition, proposes to elevate the roof without disturbing a single joint in its structure, and thus to support it, unconnected with the walls, until his masons shall have raised them to a height from the floor equal to that at which Richard the Second left them, and in due proportion to the other dimensions of the Hall.

On the left of the wall, as we pass, we observe a very handsome doorway and porch, newly put up, forming the members' entrance to the House of Commons. At the further end of the Hall (the south end) immediately beyond the doors of the Equity Courts, there rises a grand flight of steps extending across the Hall from wall to wall; and great flights of steps, whether from some unrecognised association, or from some inherent property of the beautiful in the form of their aggregation, are always grand. From the platform of their summit rises another flight of less extent, and elegantly connecting their breadth with the less extended entrance of St. Stephen's porch, at which we now arrive. This very beautiful and very noble, although but small, portion of the edifice, is altogether new, and has been built outside and in addition to the Hall, of which, however, it would seem to be a part when viewed from the south, in Abingdon Street. The open entrance to the porch, in the south wall, at the top of the stairs in the Hall, was the place of the great window, which (admired as it justly is) has been carried back the breadth of the porch, in which it occupies the principal part of the south side; the exterior is surpassingly rich and beautiful, owing much of its effect to this fine window. The interior of the porch is ornate, but soberly ornamented, with a judicious view to gradation in ornature, from the noble simplicity of the great vestibule or hall, through this porch to the Patrician Chamber, with its enriched decorations and the refulgent throne. The stranger, however, stops here for some time to indulge his admiration of the lofty roof, its groined supports, and the charming basement of the window. The form of the porch is square; its height equal to the Hall, minus that of the stairs without the area of the latter. The steps on the right lead westward into Margaret Street, at the north corner of Old Palace Yard, directly opposite King Henry the Seventh's Chapel. On the left is St. Stephen's Hall, a recollection of the abolished chapel which gave a soubriquet to the representative branch of our legislature, and was for three centuries—that is, during all the important periods of our parliamentary history—the chamber of assembly for the Commons of England, who, in their collective character, were as much distinguished by the by-name or metonym of "St. Stephen's," as the court and the royal authority were recognised in the equally figurative designation of "St. James's." This is a superlatively elegant corridor. It is indeed a fine, a noble passage; but still we must reflect, with the author already quoted, that it is after all but a "poor substitute for the Edwardian Chapel," of which it fills the place. Of this handsome hall the length is ninety-five feet, the width thirty feet, and the height to the apex of the stone groining is sixty feet. Opposite is a vast arch, occupying nearly the entire of the east end of the hall, comprehending within it a series of lesser arches leading to the central octagon, to the chambers of the two Houses of Parliament, and to the general interior of the pile. The arch through which you have passed from the porch of St. Stephen's, and which is now behind you, in the west end of this hall, corresponds with the great one of which we have just spoken. Ranged along, near the wall, on either side, is a row of massive and well-executed pedestals, which are designed to support the marble statues of those parliamentary worthies who have most distinguished themselves in the legislature, especially in the representative house, by their eloquence, patriotism, and constitutional labours. Those who have appeared to the Commissioners to merit a place in such a class of selection are Selden, Hampden, Walpole, Burke, Pitt, Fox, and Grattan, as the worthies of the Commons; Falkland, Clarendon (Chancellor Hyde), Somers, Chatham, and Mansfield, for the Lords, although the public lives of all these peers were not passed entirely in the Upper House. The blank compartments, which are ranged beneath the windows on each side, and are twelve in number, will be filled up with fresco paintings, to illustrate the most prominent epochs in the constitutional, social, and ecclesiastical history of England.

Having thus introduced the reader to the grand approaches of the Houses of Parliament, we shall close our remarks for the present.

NATURE THE SCHOOL OF ART.*

THE first quality with which the observer must be struck, is the infinite *variety* of form which pervades creation. On attempting to reason concerning it, he perceives its dependence upon the functions of each object, and what the component parts of each object are ordained to fulfil; hence he will at once recognise the fact, that form is in every case, if not dependent on, at least coincident with, structural *fitness*. When the most complex flower is submitted to the test of a scientific botanical examination, no particles are found to be adventitious,—all are concerned in fulfilling the appointed functions of vegetable physiology. As those functions vary with the growth of the plant, so in every case does its form,—changing from tender bud to blooming flower, and from blooming flower to reproductive seed-pod, as each successive change of purpose progresses. Infinite *variety* and unerring *fitness* thus appear to govern all form in nature.

While the former of these properties demonstrates her infinite power of complexity, the latter restrains the former, and binds all in beautiful *simplicity*. In every case ornament appears the offspring of necessity alone, and wherever structural necessity permits, the simplest lines in every case consistent with the variety of uses of the object are adapted. Thus, the principal forest trees, which spring erect and hardy from the ground, in their normal state, uninfluenced by special conditions of light or heat, shoot straight aloft, with boughs equally balanced on all sides, growing so symmetrically, that a regular cone or oviform would, in most instances, precisely define their outline; and thus the climbing plants, from their first appearance, creep along the ground in weak and wayward lines, until they reach something stronger and more erect than themselves; to this they cling, and from it hang either vertically or in the most graceful festoons; to each its character of form as of purpose—to each the simplest line consistent with its appointed function and propriety of expression.

While a consideration of the quality of *fitness* binds us to *simplicity*, that of *variety*, as if in counterbalance, conducts us to a just recognition of the value of *contrast* throughout the works of Creation. Simplicity becomes appreciable only when opposed to complexity, while complexity itself will, on analysis, be found to consist only of the combination of parts, individually, of extreme simplicity. Mr. Owen Jones will, doubtless, have much to tell us respecting the beautiful laws of the simultaneous contrast of colours, so we may for the present content ourselves with noticing the parallel effects, produced in obedience to the laws of "simultaneous contrast of form." The researches of Mr. Penrose have lately developed many of these most interesting phenomena; and have not only demonstrated the fact of the scientific acquaintance of the Greeks with their peculiarities, but have shown how essential an attempt to apply such knowledge has been to the production of those exquisite monuments which, from the first moment of their creation to the present time, have maintained a position of unquestionable supremacy over every other work which human art has yet produced. The general result of Mr. Penrose's investigations tends to the assumption, that no two lines can come in contrast with one another, either in nature or in art, without the direction of the one acting, either attractively or repulsively, upon the other, and tending to diminish or exaggerate the mutual divergence of both lines, i.e. to increase or lessen to the eye the angle at which they meet. Thus, if to a perfectly horizontal line another be drawn, meeting it at an angle of six degrees (about half the angle at which the inclined sides of the best Greek pediments leave the surface of the cornice), it will be difficult to convince the eye, as it traces the direction of each line, that the angle has not been materially increased by an apparent deflection of the base line, and an apparent elevation of that with which it actually forms an angle of six degrees only. In order to remedy this apparent distortion in their monuments, the Greeks have given Entasis, or swelling, to their columns, inclination of the axes of their pillars towards a central line, a tendency outwards to their ante, and exquisite convex curves to the horizontal lines of their cornices and stylobates, which would otherwise have appeared bent and crooked.

Nature in working out her harmonies of contrast, abounds with similar optical corrections. The infinitely gentle convexity of her water sky line is precisely corrected into perfect apparent horizontality by contrast with any line at right angles to a tangent to its curve. It is by attention to the optical effects produced by the impact of lines upon one another in nature, that the artist can alone store his mind with the most graceful varieties of delicate contrast. Thus it is alone that he can appreciate the extreme beauty of her constant, minute, and generally inappreciable divergence from the precise mathematical figures, in approximation to which simplicity demands, as we have already shown, that her leading forms should be modelled.

* From an admirable lecture by M. Digby Wyatt, Esq., "On the Principles which should determine Form in the Decorative Arts," delivered at the Society of Arts, April 21.

MAY 1, 1852.

The People's Illustrated Journal.

PROSPECTS OF ART-EDUCATION.

WE consider it a note-worthy circumstance, and one of good omen —(we might call it “a remarkable coincidence,” but that it was of our own contriving,) that we commence our labours on the anniversary of the inauguration of that Great Exhibition of the Industry of all Nations which distinguished the year 1851 as a golden epoch in the history of man. Labour's Great Congress—closed though it be, and the very Palace wherein it was held threatened with demolition—has established principles, and bequeathed to the world memories, which cannot but have an important influence upon the conduct and sentiments of the producing classes. New standards of criticism were there presented to the manufacturer and the handicraftsman, whose observation had before been restricted to the works of himself and his immediate neighbours;—new points of beauty or convenience worthy of his imitation offered on the one hand,—on the other, new proofs to reassure him of the sterling excellence of his own productions;—to all new fields of enterprise, new worlds of natural wealth, and new applications of materials and properties in nature which had never before been generally known, and by the great majority had never as much as been dreamed of as conditions existent.

Now that the World's Fair is closed,—now that the stranger is departed from amongst us, and has carried off his wares with him, it behoves us to take a dispassionate view of our own condition, and to inquire what we stand in need of for its improvement. This is certainly a large inquiry, and one in which the long-promised Reports of the Juries may assist us;—we say *may*, because it is just possible that the reverse may be the case, and that as their Awards astounded the world by their whimsicalness,—not to use a harsher word and charge injustice,—their Reports, should they attempt to bolster up those decisions, may only still more mystify and perplex many questions upon which sufficient disagreement, supported by more than an adequate quantity of ignorance, already exists. Prepared, therefore, to attach all due weight, and to pay all due respect to the dicta of the collective wisdom of the Great Exhibition, we shall pursue an independent course of observation not only upon particular incidents, but the general results, of that grand display, and the suggestions for the future which it appears to offer.

In our Prospectus we observed, that amongst the new principles established by the Great Exhibition, “perhaps the most remarkable and gratifying consists in a recognition of a mutual relationship between Mind and Labour much more extensive and intimate than had ever before been supposed to exist, or to be possible. The glorious result of this most Holy Alliance will be to cheer the brow of toil with the light of genius and the smile of promise, and to elevate the character of the Working-man, by giving him a taste for the Beautiful in connexion with the Useful—principles which in the economy of Nature are so wondrously associated;—in a word, to extend his resources and his usefulness, by inspiring him with an ambition to bring his peculiar industry, however humble in itself, to bear in some manner upon the highest and most honoured fields of enterprise.”

The idea here suggested is very comprehensive; it applies to every branch of industry. Proposing to ourselves at future periods to support our position by illustrations drawn from various departments of manufacture and production, we shall for the present confine ourselves to that which the title at the head of this article suggests,—namely, the application of the principles of beauty to works of utility; in other words, what is commonly called, “Decorative Art.”

And on this score let us confess our inferiority at once. Proudly asserting the unrivalled excellence of our products as regards genuineness of material, and honest and admirable workmanship, to which may be added notable economy both of material and labour, we cannot have walked through the various departments of the Great Exhibition, and inspected the furniture, the bronzes, the silks and muslins, on the foreign side, and compared them with our own, without perceiving in them an evidence of Art-culture,—of design,—of feeling in the execution, resulting from “a mutual relation between Mind and Labour,” which our own did not pretend to,—

or where they did, the fancy of the workman being not unfrequently betrayed into the absolute realisation of the absurdity propounded by Horace, of allying a human head to a fish's tail! Yes, where we have acquitted ourselves most creditably has been in following almost servilely established models, as pure Gothic, pure Renaissance, Elizabethan, Louis Quatorze, &c.; and where we have gone beyond these, we have invariably gone beyond our depth, and found ourselves in the Slough of Despond. Though this remark in terms applies more especially to articles of furniture and *virtu*, it is equally true in the spirit in regard to other products,—those of textile manufacture to wit. Here we have copying again,—copying of French patterns, of Oriental patterns, of all sorts of patterns,—or where we have sought to distinguish ourselves with something original, it has been but to reverse the steps of art, and to take to a servile copying of natural objects, as flowers, fruits, beasts, birds, insects, &c., all the more obviously misplaced for the very accuracy with which they are represented.

Looking at this state of things, the existence of which may be disguised, palliated, but cannot be denied,—looking at it as an unquestionable misfortune, as of disabling effect upon our manufacturers in their competition with their foreign neighbours,—we have a right to inquire what course it is proposed to adopt towards a remedy—what helping-hand the working man of England is to receive, to enable him to join with success in the race with his continental rivals.

Still adhering to the theory that the principles of truth and beauty,—which constitute propriety, are in their nature universal, equally applicable to the flights of the highest poetic genius and the most humble of useful productions, we anxiously ask, what is being done to bring those principles home to the appreciation of the artisan?—what are the lights by which we propose, generally, to elevate his ideas, and strengthen his intellectual faculties, and, specially as regards his calling, to regulate his taste, and encourage an inventive power within him? If none of these, the men in power and state who promoted the Great Industrial Gathering of 1851 are greatly to blame, for they have only done half their duty, and that the least agreeable half,—they have shown the deficiency without supplying it; they have exposed the weakness, but given no strength. Denied these wholesome and useful results, the Great Exhibition itself will in after times be regarded as a mockery and a snare, instead of an occasion for pride and gratulation.

But it is not too late. The Royal Commissioners, if they gave their mind to it, might well dispose of their 150,000*l.* surplus in the establishment of a School of Art for practical purposes, upon a scale worthy of the nation, and of the great enterprise it would serve to commemorate; and we earnestly hope that they will not suffer this opportunity of doing themselves so much honour, and the community so much service, to slip unimproved through their fingers.

Upon this subject we find some suggestions made by Mr. C. Heath Wilson, in a letter to the “Art-Journal,” which, though by no means meeting the larger requirements of the case, are well worthy of attention:—

I need not say a word in support of the desirableness of supplying fine examples to schools, and of enabling the community to procure, readily and cheaply, good specimens of ornamental Art. Any one who has visited the model rooms of our manufacturers must be aware of the eagerness with which such models are accumulated, and of their very imperfect nature in the majority of instances.

The French Government, wise in its fostering care of Art, has made provision for a plentiful supply of casts to its schools and to manufacturers, and has formed a fine collection of moulds in Italy and elsewhere, from which we have received the greater portion of our supplies in this country.

In my opinion, the procuring of fine models is the most important, and ought to be the first step taken in any scheme for promoting arts and manufactures. I do not think it a step in the right direction to purchase works of modern foreign manufacture, however excellent, as models; we have too many of these mere imitations already.

We must go to the sources to which our clever and skilful neighbours have gone, and educate our people, to appreciate and understand fine works of Art in the same way that they do, and to make the same or a still better use of it.

Besides moulds from classic, mediæval, and revival monuments, moulds might readily be made from precious works of every description, in bronze, in which the museums and churches in Italy abound; also from the admirable examples of decoration in terra-cotta, and in carved wood, to be found in every town in the Peninsula.

Many proposals have been made to establish collections of casts in our provincial towns, and, no one can doubt the value of such collections, or the benefits which they must confer. At present, such galleries cannot be formed at a reasonable cost, or provided with good casts, except from the British Museum. Recourse must be had to France and Italy for casts of a good quality of the fine works in foreign galleries.

In future papers we shall investigate in detail the past, the present, and the future of Art-Education in England.

REMBRANDT.—HIS LIFE AND WORKS.

THIS great painter was born, June 15, 1606, in a mill near Leyden. His father, whose name was Herman Gerritzen, had him baptised under the name of Rembrandt. Some will have it that his name was Van Rhyn, but it is proper to remark that at that period, surnames were not in general use. Van Rhyn was a nickname given to his

father, whose mill was situated on a canal supplied by the waters of the Rhine.

When a youth, Rembrandt was sent to the college of Leyden, but made no progress. He soon renounced the study of languages, and devoted himself entirely to painting. His first masters, whom



PORTRAIT OF REMBRANDT; PAINTED BY HIMSELF. IN THE NATIONAL GALLERY.

appears, he frequently changed, are little known: one of the last was Peter Lastman, a painter of Amsterdam, with whom he remained but six months. Returning to his father's mill, he there established his work-room, employing no other models than such persons as business brought to the mill. Retired from the world, Rembrandt never dreamt

of fame, and painted for the gratification of his own taste only. But he was soon made known by one of his pictures. As soon as he had finished this picture, he was advised to show it to an amateur at the Hague: he carried it thither himself; it was highly approved of, and purchased for one hundred florins. So considerable a sum almost

d the young artist's brain, who, instead of returning on foot, a post-chaise, in order, the sooner, to announce to his father, his *debut*.

The allurements of gain set Rembrandt to work with greater zeal and energy; and in 1628, he undertook engraving; he was as singular in art, as he had been before, in painting: he employed aqua-fortis, adhered to none of the rules observed by other artists.

Having been engaged successfully in painting some portraits, Rembrandt thought that this occupation would be more lucrative in a large

and he fore went side at Am- um in 1630. now pour- upon him: relying on dents, not- tending his y after t, he mar- for love, a iful pea- whose por- he has d several

has been hat Rem- t made a y to Ve- in 1634; his is an e never d Holland, e applied lf to his with ex- asiduity. as singular dress, and ent in his a; his phy- my was ish; he as- ed only persons of west class: infavourite was: I be sorry to for gran- which inconv- me: I like, too well. so strictly adhere to principles, the Burgo- Six, his er and l, could succeed in ing him to ent good y.

Rembrandt's pictures as highly ed as those

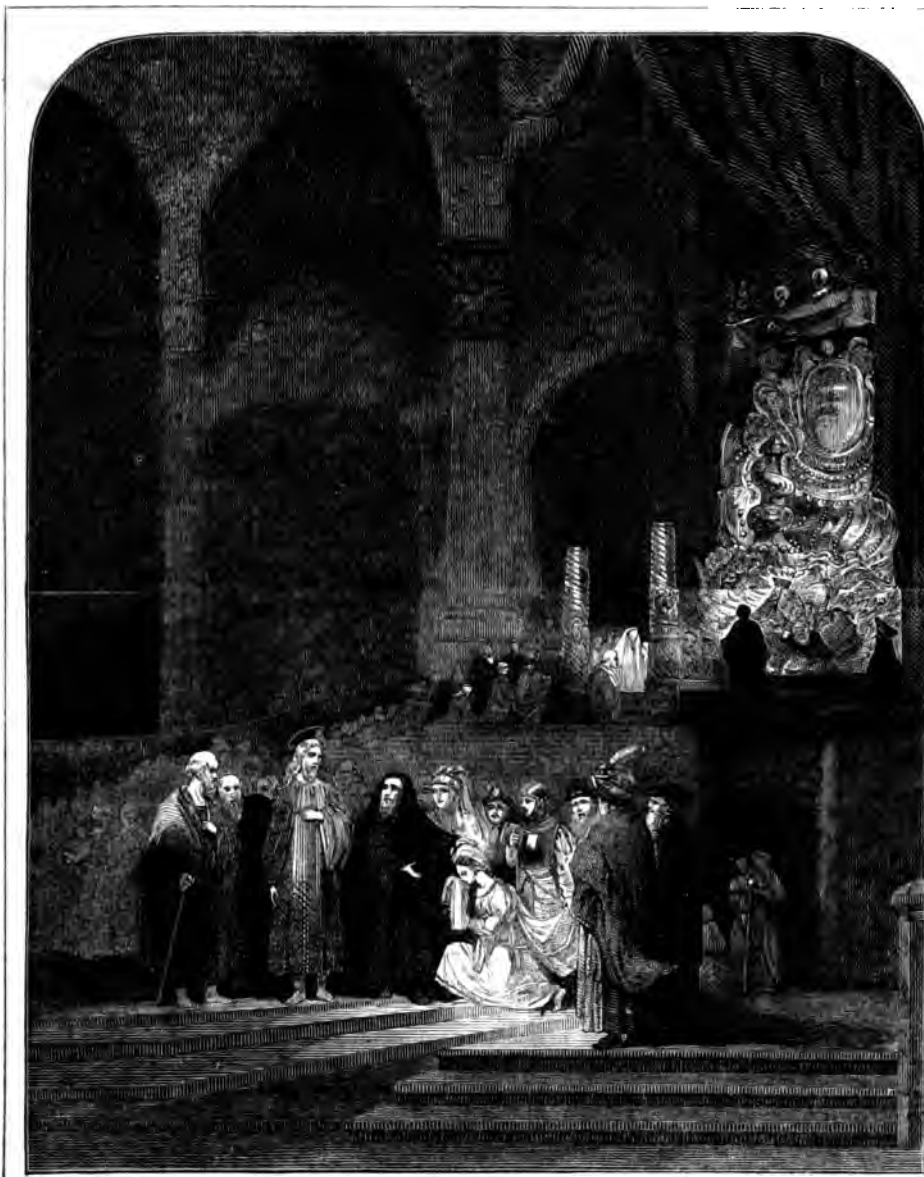
ieria. Among the pictures done in this style, are noticed the of St. Peter, Haman and Ahasuerus, and the Woman taken in ery. But whether, from having attained a higher degree of tion in his art, or from an insatiable thirst after gold, he soon nto a way of hurrying off his work. It is supposed that the motive often induced him to strike off proofs of his engravings, e he had finished them; and, afterwards, to make in them some portant changes, with the sole view of obliging amateurs to pur- from him, several times over, the same prints. He has been n to draw seven proofs of the same print, each differing only ly from the other.

tirely governed by his own caprice, Rembrandt often sought to others to conform to it. It is related of him that having once ed a whole family in one picture, he took the liberty of adding ortrait of his monkey, whose death had been announced to him t he was painting: and he chose rather to keep the picture, than nt to efface a head which, though foreign to the family, he, theless thought had some resemblance to it. Equally singular s manner of painting, Rembrandt charged his lights so thickly hey might be mistaken for an attempt at modelling. Nay, some

say that the nose of one of his portraits projected nearly as much from the canvas as did the natural nose from the face of the original. It is unnecessary to say that this is an exaggeration; but this manner of painting, as we may well suppose, did not flatter every taste. Rembrandt, however, remained indifferent to criticism. Intimating to a person that his works were not destined to be inspected closely, he observed, that it was not proper to smell a picture, the smell of colours being unwholesome.

It has been said, that had Rembrandt been in Italy, he would have

attained greater perfection in his art: this however is doubtful, unless his manner of thinking could have been changed. If we find in many of his figures a certain triviality of expression, it is because he originally intended they should be so; for the character of his portraits is generally fine; and when he represents Jesus Christ, St. Peter or St. Jerome, the principal head is a model of grace and nobleness of expression. His drawing is often incorrect, but it is because he would not take the pains of doing better. He was at no loss for good examples. Holland possessed numerous collections of the engravings of the great Italian masters; but Rembrandt set little value on such means of study. He was acquainted with the antique but by name; and never mentioned it but to make it the subject of jesting. On this subject there is an anecdote of him worth relating. Having collected in his work-room, a quantity of old



THE WOMAN TAKEN IN ADULTERY; BY REMBRANDT. IN THE NATIONAL GALLERY.

armour and foreign or whimsical costumes, with which he often amused himself in forming drapery for his models, these he called his antiques. He felt no desire to study Titian's pictures, because he had by him, pieces of velvet and other stuffs which he repeated in his pictures. He lost a great deal of time in clothing his figures, having neither the advantage of study, nor good taste to direct his choice.

The bold touch which characterises the works of this painter, might induce the belief that he worked with great dispatch; but from his perpetual indecision as to the attitudes of his figures and the cast of the drapery, he was often obliged to change what he had done; his great perseverance remedied this defect.

Rembrandt was fond of the striking contrasts of light and shade. He understood *chiar'oscuro* to an astonishing degree; it is supposed that in order to obtain such a brilliant effect, as some of his pictures realise, he used to dispose his work-room, which was generally dark, in such a manner as to admit the light but by a small hole; the rays of light thus contrasted were directed at pleasure on the part of the model which he wished light. When on the contrary he wanted an illumined back-ground, he placed behind his model a piece of linen of a suitable

colour, from which his model was thrown off, with the degree of shade required.

Rembrandt began his portraits with a precision and force of colouring peculiar to himself. His resemblances were striking. He never embellished, but rendered nature with a simplicity and truth truly wonderful. An admirable specimen in this way is the celebrated picture in the theatre of anatomy at Amsterdam, in which Professor Tulp is represented giving an anatomical demonstration, in the year 1632, before many celebrated men, among whom we notice James de Witt. Rembrandt's manner is a species of magic; his works are life itself; he has no rival in his skill of contrasting the effects of different colours, and no one has better distinguished the colours which agree, from those that are incompatible with each other.

It is not alone as a painter that Rembrandt has distinguished himself; his fame is equally great as an engraver. Like his pictures, his engravings are full of beauties and defects: an unrestrained liberty, a happy disorder and a vigorous effect are the distinctive characters of his prints. The execution of his plates is sometimes rough, sometimes finished; but the lines are always crossed in such a variety of ways, that it is altogether impossible either to trace them or to account for the manner in which they have been drawn, as may be done in the plates of other engravers. In examining, however, with care some of his prints, we discover that he frequently retouched his plates with aqua-fortis; and some others prove that he was very expert at dry etching. Moreover, as he drew the proofs himself, he employed other extraordinary means, at the time of striking them off, by wiping the plates more or less, in such a manner that some of the prints present the appearance of having been washed with a hair-brush. His engravings amount to three hundred and eighty, some of which are so rare that proofs have brought prices as high as 1200 or 2000 francs (from 50*l.* to 80*l.*).

This painter was continually employed in turning his talents to the best account. He had a great number of pupils, and Sandrat assures us that his annual income from this source amounted to 2500 florins (200*l.*). Among his pupils were Vanden Eeckout, Flinck, Ferdinand Bol, Lievens, Van Vliet, Gerard Dow, Leonard Bramer, Nicholas Maas, Koning, Godfrey Kneller, so celebrated in England for his beautiful and numerous portraits, and also his own son Titus, who lived in obscurity.

Notwithstanding his incessant labour, Rembrandt lived miserably, and it is assured that frequently his dinner consisted of a herring and a piece of cheese. In this abject state of self-privation did this great painter live to the age of sixty-eight years. He died at Amsterdam in 1674.

In illustration of Rembrandt's happiest style, we engrave his picture of the "Woman taken in Adultery," one of the treasures of our National Gallery, which, for grandeur of sentiment, appropriateness of expression, and pathetic interest, is unsurpassed by any other picture in the rooms. Of this work Dr. Waagen, one of our most recent and best authorities, says:—

"Of all Rembrandt's cabinet pictures this perhaps holds the first place. In general, we admire in the pictures of this master the magical effect of the deep *chiaroscuro*, the bold conception, and the admirable handling. Here, however, it is not only the bright, full, gold tone, by which the principal figures are relieved from the dark background, that attracts us, but the beauty and intelligibility of the composition, the manifold and just expression of the heads, the delicate execution combined with the most solid impasto. How much more powerful is this expression of the deepest compassion and sympathy in Christ, of bitter repentance in the woman, in spite of the ordinary, nay, ugly countenances, than the most beautiful forms taken from the antique, according to general principles of beauty, such as we see in Mengs and so many highly extolled painters, who have acted upon a theory of beauty, but whose figures are destitute of that life and soul which the genuine feeling of the artist, in accordance with the spirit of his subject, can alone breathe into them!"

There are altogether nine pictures by this great master in the National Gallery,—viz. "Christ taken down from the Cross," a small piece, in his early style; "The Woman taken in Adultery," also of his early period, one of his finest productions, and already spoken of at length in the course of this article; "The Adoration of the Shepherds," a very admirable production, in which the poetry of Art is shown by causing the principal light of the picture to emanate from the Infant Christ; "Portrait of a Jew Merchant," full of character; "A Woman bathing," or, as Mrs. Jameson suggests, "washing" clothes; a Landscape with Figures, representing the story of Tobias and the Angel; Portraits of a Capuchin Friar and of a Jewish Rabbi; and lastly, the Painter's own Portrait, which we engrave.

This portrait was purchased in 1851, at the sale of the collection of Viscount Middleton, at Christie's, for 400 guineas. It is an extremely characteristic picture,—not a flattering one certainly. Painted probably at an advanced period of the artist's career, when indulgence in the good things of life had not improved the delicacy of his complexion, the rough patches of paint are laid, or rather dabbed on, about the more prominent features of the face with an unsparing hand. The true effect, therefore, cannot well be judged of, except from the opposite side of the room, and then the life-like appearance of the face is marvellously illusive, whilst the judgment and skill with which the dark shades of the background are lightened around the upper part of the head, cannot fail of being remarked.

THE AUSTRALIAN GOLD REGIONS.

RECENT events have rendered Australia of more importance to the industrious classes than any other of our colonial possessions. For several years there has been an annually increasing demand for unskilled labour, chiefly in the pastoral pursuits in the Australian colonies, but the discovery of vast fields of gold in the midst of fertile agricultural districts, and at no great distance from seaports, has rendered that demand as far as we can see, inexhaustible.

Before the discovery of gold, sheep increasing much faster than men required every year more shepherds, more shearers, and more bullock drivers, to attend to the enlarged flocks and supply the places of the who, having saved enough money to start in some calling on their own account, retired from hired service, and became masters themselves. But now, while the vast flockherds continue to afford plenty of beef and mutton at a cheap rate, gold digging attracts thousands of every rank in colonial society. A great many gentlemen are not ashamed to dig for gold, although they would have disdained to follow sheep, plough, or hoe, or dig potatoes.

The existence of gold in considerable quantities in Australia, has been known to a few for several years. In 1848, Sir Roderick Murchison, the eminent geologist, received such evidence on the subject, that he addressed a letter to Earl Grey, then Colonial minister, suggesting that some rules should be adopted for regulating researches. No attention was paid to this communication, or to others of the same nature made to the colonial government by competent parties in the colony.

The consequences of this neglect of practical and scientific warning will at no distant period prove most disastrous to the pastoral interests of the colonies, and by reaction to the Yorkshire woollen manufacture.

Scarcely twelve months have elapsed since the first discoveries of gold on the Summerhill creek and the Turon were made, quickly followed by the working of even richer fields at Ballarat and Mount Alexander in Port Phillip; and already we have authentic intelligence of the abandonment of thousands of sheep by their shepherds, and the almost total cessation of copper mining pursuits in South Australia. The amount of gold seems likely to equal the produce of California, whilst there this important difference between the two cases: In California, everything had to be carried a toilsome journey to the distant and barren deserts in which the most valuable gold fields were found. In Australia the richest fields are in the midst of settled districts, within easy reach of ports, which for some years have enjoyed considerable commerce.

A few figures will show the nature and importance of this extraordinary revolution in the material pursuits of Australia. The value of the gold exported from Sydney between the discovery in May, 1850, and the 1st, January, 1851, was 466,000*l.* The amount brought down by the week's escort up to 27th December, was 6,250 oz., in addition to which a large quantity was sent down by private hands.

From Melbourne, 88,000 oz., value 264,000*l.* were exported direct to London, beside what was sent to Sydney. The last escort is said to have brought down nearly a ton of gold from Mount Alexander to Melbourne, and the weekly earnings of the various fields are estimated at upwards of two tons of gold, weekly.

These few facts are set down by way of introduction to an account of the state of the colonies and their industry before these disturbing profits had arisen.

It is to be observed of the three principal Australian colonies, New South Wales, Victoria, and South Australia, that, before gold was added to their staples, they were exporters to the extent of upwards of 3,600,000*l.*, and importers of 3,800,000*l.* They defrayed the expenses of their government, were customers for a large amount of manufactured goods, gave employment to a considerable tonnage of British shipping, and annually contributed from the rent and sale of waste lands a sum equal to the free passage of from ten thousand to twenty-five thousand destitute British emigrants, by so much relieving the poor rate.

The exports above mentioned, consisted in great part of wool, tallow and copper ore. The wool and tallow, were derived chiefly from New South Wales and Port Phillip. Copper ore has hitherto been the great staple of South Australia, where the pastures are less extensive than in the other colonies, but a copper mine, the Burra Burra, is one of the most productive in the world, or at least was, until almost all the miners departed to dig gold.

The immediate result of these gold discoveries will be to ruin the great owners of flocks and herds, especially of sheep. Cattle run wild, may, by good horsemanship and good luck be reclaimed, and they will go on breeding even without the especial care of the mounted herdsmen, whom they call stockmen in Australia. But sheep require to be followed all day in flocks not exceeding 700 each, and driven night into folds or yards. If they are not so followed and tended, they are dispersed, worried by wild dogs and diseased by contact with diseased sheep. At lambing time they require peculiar attention, shearing time the work has been hitherto performed by bands of itinerant men, who have now gone to the diggings. The three men required to shear each flock of 1500 sheep in 14,000,000, with the increase of from 50 to 70 per cent. per annum, created the great labour demand of Australia.

It was the fine wool of Australia produced so cheaply that created all the mixed woollen manufactures under the names of merino, bolzarine, mousseline de laine, coburgs, &c., and also the fine faces of coarse cloths which have formed a new and most important branch of Yorkshire manufactures within the last fifteen years—manufactures which were the subject of the admiration of foreigners for their quality and

cheapness at the Great Exhibition. Australian wool may be purchased for 2s. which would have cost 10s. when Spain was the only fine-wool producing country. Nothing can save this branch of industry but the exportation of a sufficient number of emigrants too old, too feeble, or too lame to dig gold, but willing enough to follow sheep for their board and lodging and 20s. a year. Gold-digging is as hard work as digging sewers or cutting tunnel-work on railways.

But while sympathising with the ruin of those who have invested great sums in Australian sheep, we have the satisfaction of knowing

that a very valuable class of small farmers or yeomanry will be increased and rendered flourishing in Australia by a steady demand for agricultural produce, and that these gold discoveries will solve a difficult problem and assist the most destitute class in Great Britain.

Two points have always puzzled our statesmen and often silenced our economists. How to provide for the constantly increasing influx of unskilled labour? How to employ the masses displaced by great improvements in machinery? The first difficulty, in which Ireland held so large a part, received important assistance from California. Just at the moment



PARTY OF GOLD-SEEKERS ASCENDING A PASS IN THE BLUE MOUNTAINS.

when the Americans were becoming alarmed by the armies of Irish emigrants, the drain of population created by the conquest and discovery of the mineral wealth of California, created a demand for labour which Irish emigration has never been able to overpass, although it has risen on a purely self-supporting basis to nearly 300,000 souls a-year. Each year those who arrive pay the passages of more whom they have left behind. The tide never will cease flowing in increasing force from Ireland to the United States until wages in the former country have risen from 6d. to 2s. a-day, if then.

Australian gold invites another class—a class not able to dig and swing the axe. The voyage is long; the cost three times that of reaching America; but the reward is greater, and especially tempting to those who, accustomed to indoor or sedentary employment, are dispossessed by the introduction of steam driven, instead of hand, machinery. The advantages are not less to the small farmer of England and Scotland, half ruined by a reduction of thirty per cent. in his rent-paying corn, than to the stocking or carpet weaver. There are then three employments of a most profitable nature open to emigrants in Australia, under one of the healthiest climates in the world.

1st. Gold-digging.

2nd. Growing corn and vegetables, and making butter and cheese for the gold-diggers and town populations.

Thousands of acres of the finest wild land surround the gold-fields, which it will require little capital for a man with a willing useful family to cultivate.

3rd. Attending sheep or cattle. The wages of a shepherd are such, and the duties so easy, that a man and his wife who never saw a sheep before except in a shop, may in three years save from 60s. to 100s.; more if they have a family of hearty boys and girls.

There are nearly two hundred thousand able-bodied paupers in England, whose maintenance and dwelling are indirectly paid by working men's wages, which they help to keep down.

Providence has placed in our hands a limitless field for labour, which at the same time produces the raw material and consumes the finished produce of manufacturers exactly in proportion as we stock it with colonists.

Under these circumstances the rapid colonisation of Australia is essentially "the Question" of the Industrious Classes, to whom "THE PEOPLE'S ILLUSTRATED JOURNAL" is especially addressed.

THE WORKSHOPS OF ENGLAND.

No. I.—PAPER-MAKING.

PAPER, the great vehicle of intelligence and civilisation, shall be the object of our first observations amongst the "Workshops of

England;" for although paper is made elsewhere, in almost all parts of the world, we believe that there is no paper produced equal to that manufactured in England; and we may fearlessly add, that there is no part of the world where paper is put to such honest and such noble uses. In England alone, from amongst all European nations, have we a free press and a post office, happily now rid of spies; and with Englishmen, therefore, the manufacture of paper should be looked upon

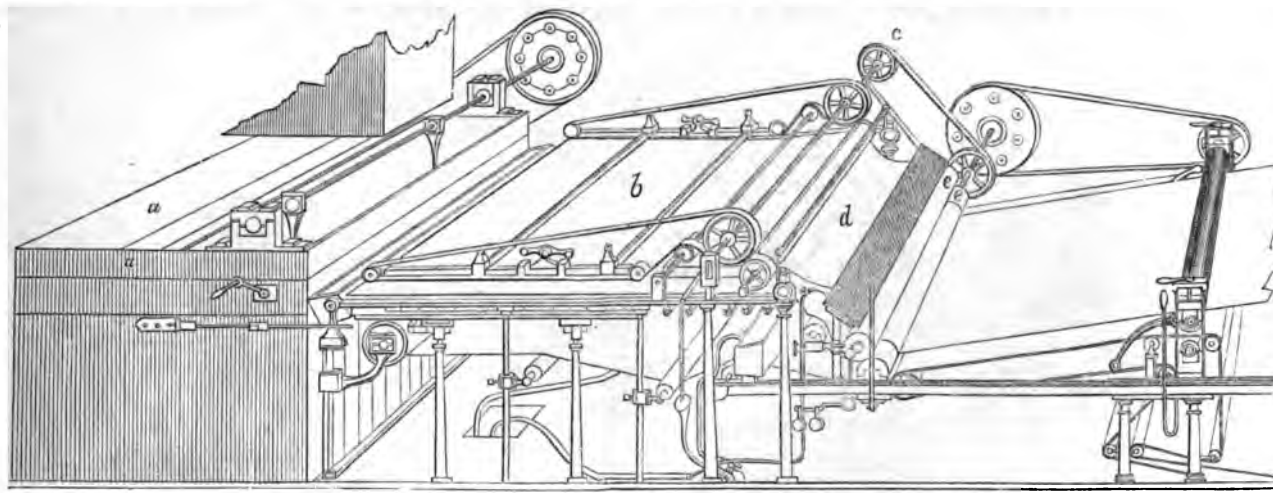


FIG. 1.

with peculiar favour and interest. Even in happy England, however, where thought is free, where truth is ever patent, and ever strong, paper, the medium of conveying thought and truth to the millions, is not encouraged as it should be by legislators who seek, or pretend to seek, the extirpation of error, and repression of wrong. Even Virtue must pay tribute to Caesar in a wicked world, and the great peace-maker—Intelligence—pay its proportion of an odious war-tax. But upon this point we will not here further digress. To what extent the Excise import upon paper, and the regulations attendant upon its collection,

as substitutes for rags in the manufacture of paper. The bark of the willow, the beech, the aspen, the hawthorn, and the lime, have been made into tolerable paper; the tendrils of the vine, and the stalks of the nettle, the mowall, the thistle, and the pine apple, have been used for a similar purpose; the bine of hops would, it is affirmed, produce paper enough for the use of England; and patents have even been granted for making paper of straw. The process of bleaching coarse rags will, however, render the use of inferior substances unnecessary for many years.

The rags of our own country do not furnish a fifth part of what we consume in the manufacture of paper. France, Spain, Portugal, Holland, and Belgium prohibit under severe penalties, the exportation of rags. Italy and Germany, therefore, furnish the principal supplies of linen rags, both to Great Britain and the United States. They are imported from Bremen, Hamburg, Rostock, Ancona, Leghorn, Messina, Palermo, and Trieste, and arrive in closely-packed bags containing each about 4cwt., according to the respective qualities. The linen rags of England are generally very clean, and require little washing, and no bleaching, before they are ground into pulp. Italian rags, on the contrary, are originally so dirty, that they require to be washed in lime; while the greater part of the rags from the north of Europe are dark in colour, and coarse in texture.

The rags are sorted and prepared by women, in a long room set apart for the purpose. Each woman stands at a frame, or table, whose top is covered with wire; on her left is a quantity of rags; on her right a box divided into three compartments. On a part of the table an upright knife is fixed. Each spreads a few on the wire frame, before which she stands; and as she shakes them the dirt passes through the wire to a box beneath. If the pieces are three or four inches square, she throws them into one of the compartments of the box on her right, according to its quality. If a piece requires to be cut, she draws it across the knife. Seams are put by themselves; since sewing-thread would produce filaments in the paper. An active workwoman can sort and cut a bag of a cwt. in a day.

The rags are then put into large square chests, and steam admitted, by which they are boiled with lime for some hours, for the purpose of assisting in cleansing them.

From the steaming shed they are removed into an upper room, and subjected to the movements of a large horizontal wheel which is connected with several oval cisterns, or troughs, about ten feet long, and four or five feet broad. These troughs are called *Engines*, which wash, tear, and beat the rags. The washing is performed in a trough 10 feet long, 4½ feet broad, and 2½ feet deep, and is made of wood, lined with lead. In this works an iron roller, 22 inches in diameter, and 26 inches wide. There is also an apparatus for conveying pure water into the trough, and for carrying off the foul water. The roller being set in motion, about a cwt. of rags are put into the trough and as much water is let in as will raise the whole within an inch or two of the brim. The next process is that of cutting up, or grinding the rags, to which end the roller's surface presents a number of bars or knives, projecting more than an inch; and beneath the roller is a plate composed of bars or knives, of the same kind. The roller makes about 160 rounds in a minute, and the rags are carried with great rapidity through the knives: and, as the roller is depressed upon the plate, or elevated, the rags are drawn out, bruised, or cut. Above the roller is a cover in which are two frames of wire cloth, communicating with



WOMEN CUTTING THE RAGS.

affect the manufacture of this important article and restrict its use, will be briefly stated in the concluding portion of this essay.

Strange are the vicissitudes of all mundane things; strange and varied the cycle through which they have to run before they have accomplished their destiny. This is observable of many matters; but of none more so than of paper and its constituent elements. The rags which yesterday the beggar cast away, are to day in the shape of "superfine cream-laid;" the bearer of perfumed addresses from an "exquisite" to his "ladye love;" the shirtless philosopher or poet, eliminates his calculations or his rhapsodies upon a dandy's cravat, or pert young miss's furbelows, converted by the aid of machinery to his use. The bishop's lawn sleeves may carry intelligence of home and absent friends to the wanderer in the "far west."

No substance but rags enters into the composition of first-class paper. Many experiments have been made upon substances proposed

the water-pipes. The cleansed mass is then removed to a press, for the purpose of driving out the water.

The process of bleaching then reduces every description of linen

damaged sheets, or to remove knots; and, finally, put into quires and reams for sale.

Various wire-marks, or "water-marks" as they were called were formerly applied by means of raised wires upon the frames, to paper, being mostly the initials, emblems, or arbitrary signs adopted by the makers.

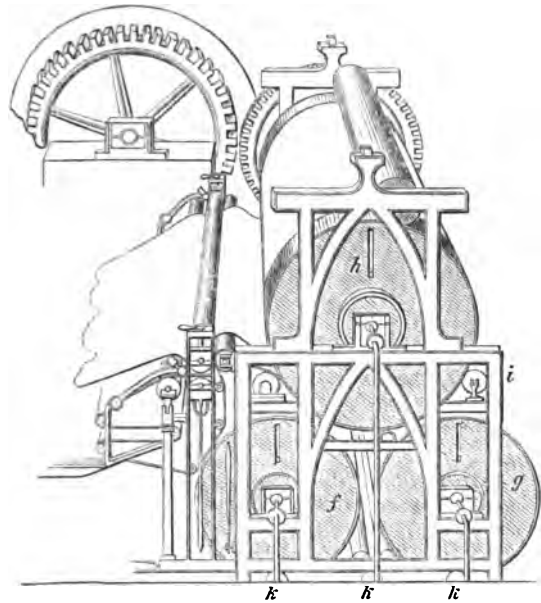


FIG. 1 (CONTINUED).

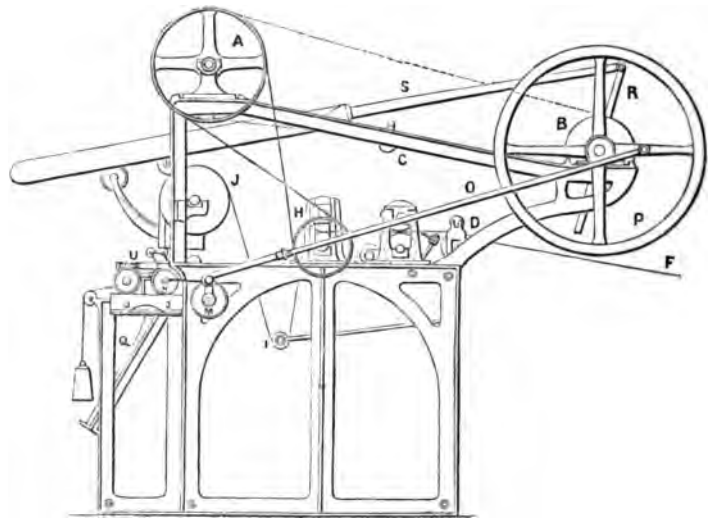


FIG. 3.

to a uniform whiteness. The rags, for this purpose, are placed in a receiver or chamber made of wood, from which external air is excluded, and into this chamber are conveyed pipes, communicating with a retort, in which chlorine or oxy muriatic gas is formed, by heating a due proportion of manganese, common salt and sulphuric acid. In a few hours the rags are white, and subsequent operations of washing and bruising purify them from smell.

At this stage of the proceedings, the mutilated rags are called "half stuff," that is, stuff half finished. The half stuff is then put into the beating engine, of the same construction as the washing-engine, except that the knives of the roller and the plate are closer together, and the roller is moved with more rapidity. Being ground for some hours, the rags assume the appearance of fine pulp, somewhat resembling milk. In this engine *ax* is sometimes introduced, but, in writing papers, the size is applied after the sheets are made.

The pulp is now conveyed by a valve to the chest, a large circular vessel which will contain several engines full of pulp or stuff. We

The first maker in England is supposed to have been John Tate, who is said to have had a mill at Hertford: his device was a star of five points, within a double circle. The first book printed on paper manufactured in England was a Latin one entitled *Bartholomeus de Proprietatibus Rerum*: it was printed in 1495 or 1496: the paper seems to have been made by John Tate the younger, and had the mark of a wheel. The paper used by Caxton, and other early printers, had a great variety of marks, of which the chief are the ox-head and the star, the letter *B*, the shears, the hand and star, a collared dog's head, with a trefoil over

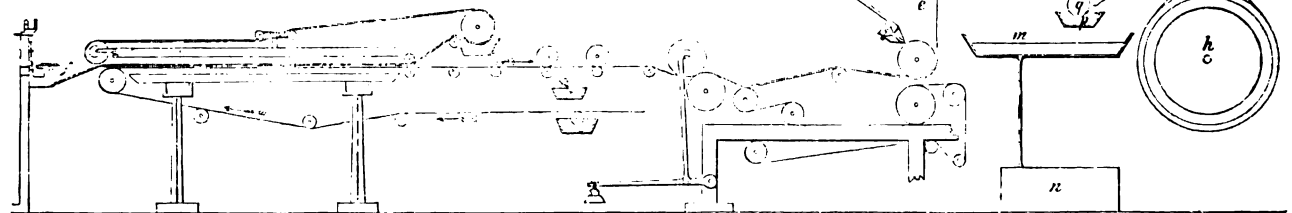


FIG. 2.

have now to describe the processes by which the chaotic mass is spread out and obtains the thin and fine texture of paper.

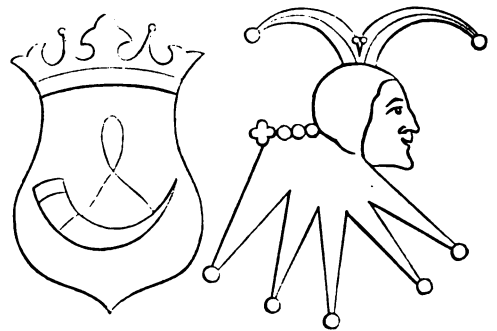
The old process which is still used for some purposes, was to manufacture the paper sheet by sheet by hand: just as a housewife makes pancake after pancake out of one pan or mould. This ancient and nearly exploded proceeding may be thus described:—A frame, or fine sieve is dipped into a vat, and this vat is supplied with stuff from the chest, while the stuff is kept warm by a copper within the vat, to which heat is communicated by a steam pipe, and kept agitated by machinery within. The workman called a *ratman*, is provided with two moulds of fine wire. A moveable raised edging called a *deckel*, determines the size of the sheet, and the *vatman*, putting the edging on one of the moulds, dips it vertically into the stuff; and bringing it to the surface horizontally, covered with pulp, he shakes it gently, and then pushes the mould with the sheet towards his fellow-workman, called the *coucher*; and taking off the *deckel*, applies it to the second mould. The *coucher* turns the mould over upon a felt, or flannel upon which the sheet remains; and placing a felt on the sheet, he is ready to turn over another from the second mould. The heap is then subjected to the action of a powerful press. The sheets, after this pressure have acquired sufficient consistency to enable them to be pressed.

The sheets being parted are dried, five or six together; next sized, by dipping; again dried and pressed; examined, to throw out any

it, a crown, a shield with something like a bend upon it, &c. &c. The ox-head, sometimes with a star or a flower over, is the mark of the paper on which Faust printed some of his early books: but the open hand, which was likewise a very ancient mark, remained longer in fashion, and probably gave the name to what is still called *hand paper*.

The jug paper is next in order, which derives its name from a representation of that vessel.

The foolscap was a later device, and does not seem to have been nearly of such long continuance as the former. It has given place to the figure of Britannia, or that of a lion rampant, supporting the cap of liberty on a pole: the name, however, has continued, and we still denominate paper



of a particular size by the appellation of foolscap paper. In the subjoined figure, the cap and bells we so often read of in old plays and histories as the particular dress of the fools who formed parts of every great man's establishment, are accurately embodied. The "post" paper seems to derive its name from the postman's horn, by which it is distinguished.

Hand-made paper is now generally marked with the name or initials of the maker, and the year when it was made.

Paper-making by Machinery.—We now come to describe the process of paper-making by machinery, one of the most ingenious, and in its results, one of the most important applications of modern skill. To revert to a familiar simile just now adopted by us;—let the reader imagine the difference between making pancakes, one after the other, by distinct operations of the hand, and spinning a succession of pancakes in one continuous length, to be severed apart at will, and he will have some notion of the economy of time, labour, and material, effected by this process of manufacture.

The invention of the paper-making machine is due to Mr. Fourdrinier, various improvements in details having been added from time to time, by Mr. Dickinson, Mr. Ibbotson, Messrs. Towgood and Smith, and sundry others. Before particularising these devices, however, we will generally describe the main features of the process as at present carried on. The reader will have the goodness to cast his eye, from time to time, upon the engraving, fig. 1, in the course of his perusal of what now follows:—

We start from the chest, in which the pulp of ground rags has been collected; and which is kept well mixed or stirred up by means of a revolving machinery. At the bottom of the chest, and above the vat, (a), there is a cock, through which a continuous stream of pulp flows into the vat, which is always, therefore, filled to a requisite height. From the upper to the lower part of this vat, from the left to the right division, a portion of the pulp flows upon a narrow wire frame, which constantly moves up and down, called a sifter. Having passed through the sifter, the pulp flows still onward to a ledge, over which it falls like a sheet of water over a smooth dam. Here it is caught upon a plane (b), which presents an uninterrupted surface of five or six feet, upon which the pulp seems evenly spread, as a napkin upon a table. This plane is constantly moving onwards with a gradual pace, and it has a vibrating motion from side to side. It is also perforated all over with little holes; and, in fact, is an endless web of the finest wire. The pulp at the end of the plane, upon which it first descends, is fluid; at the other end it is still soft, like wet blotting-paper. The pulp does not flow over the sides of the plane, because a strap, on each side, moving with it, regulates the width. When it has ceased to be fluid it is yet tender and wet; and a wire cylinder, which presses upon its surface, leaves a succession of lines upon it. When off the plane of wire, another roller, clothed with felt, (c), upon which a stream of cold water is constantly flowing, subjects it to pressure. A tight surface of flannel, or felt, (d), then moves onwards which, like the web of wire, and, like the wire, is endless; or united at the extremities, like a jack-towel. The inclined plane of the stretched flannel gradually absorbs its moisture, and two rollers, (e), powerfully squeeze it. Afterwards, it travels up another inclined plane of flannel, and passes through a second pair of pressing rollers. The paper now is quite formed, but fragile and damp. From the last pair of cloth-pressing rollers the paper is, therefore, received upon a small roller, and guided by it over the polished surface of a large heated cylinder, (f). The soft tissue now begins to smoke; but the heat is gradually apportioned. From the first cylinder or hot drum, it passes to a second, (g), larger, and much hotter, and all the roughness gradually vanishes. It finally passes over a third cylinder, (h), hotter than the second, and having been subject to the pressure of a blanket, which confines it on one side, while the cylinder smooths it on the other, it is caught upon a last roller, and passed to a reel, (i), as perfect paper.

Two more processes yet remain to be done before the paper is fit for distribution and use, the one that of sizing the surface to prevent the ink running over or soaking into its naturally porous texture; the second, that of cutting the long roll of paper into the proper lengths.

The sizing process, for which Messrs. Towgood and Smith took out a patent some years ago, is simply performed by passing the paper over an extra set of pressing rollers, properly supplied with size.

Fig. 2 exhibits, sectionally, the machine of Fourdrinier, with the additional sizing rollers introduced. Here the liquid size is conveyed by a pipe from an elevated size-chest k, from which it is poured out at the lower end of the pipe i, in a small stream, regulated by turning a cock at the upper end of the pipe, and that stream runs into a long narrow trough l, or gutter, which extends horizontally all the length of the rollers, nearly over the space between the two rollers a and b.

For the purpose of cutting the paper into lengths, as well as of necessarily dividing it in width, various forms of contrivances have been adopted all, however, depending upon the same principle. We shall describe one of the most recently invented, that of Mr. George Tidcombe of Watford Iron Works, who set up the Machinery at Loudwater Mills, Herts, where the paper used for "THE PEOPLE'S ILLUSTRATED JOURNAL" is manufactured.

This machine is intended for cutting paper to the required width and length, as it issues direct from the paper-making machine, or as it is removed from the holding reels. As arranged in the present instance, the machine is fitted with three rotatory cutters—a central one for severing the web into two equal parts, and two side ones for cutting the edges to regular lines; whilst a fourth cutter, or transverse knife, severs

the web into proper lengths. Fig. 4 is a side elevation of the machine. It is worked by a pair of cast iron cone drums, A, B, and a screw between them at C; the extent of the whole width of the machine regulates the strap and speed required. As the paper is to be cut longitudinally, it is conducted through a pair of rollers, D, previous to entering a double row of circular cutting knives, E, E, for that purpose. These knives are so formed as to cut on the scissor principle.

The sheet is then led through another pair of iron rollers, H, and thence by a dancing roller, I, to a felted drum, J, high up in the machine, so as to cause it to descend perpendicularly for being cut transversely. The knives which then cut the sheet at K, are two blades of steel as long as the width of the machine, worked also on the principle of a pair of scissors, beginning the cut at one end. The top knife being a fixture, the bottom one is mounted on a pair of wheels at each end, moving backward and forward on a train, L, by a crank, M, a pulley and strap connecting the axle, N, and which crank is moved by the arm, O, from the fly-wheel, P. The reverse action is given to the knife by a pair of weights and pulleys at the front. The paper is now cut into sheets, and a boy receives them at Q.

The arm and link, R, S, are attached to the cone drum spindle, and are for the purpose of regulating the length of sheet required. The arm, R, slides up and down the boss at its centre, being thereby made a long or short crank. On the spindle of the drum, J, on the same side of the machine as the arm, S, is a ratchet-wheel of the same diameter as the drum. This arm, S, when on the ratchet-wheel, moves the sheet down, and when the throw of the crank in its motion stops the sheet, it runs on the pulley, T, set on a lever, the other end of which catches against the under side of the ratchet-wheel, and holds it till the sheet is cut, and the arm, S, makes another stroke. At U is a stop-board as long as the width of the machine, and at every motion of the train-knife, K, on the wheels, N, it holds the sheets while they are being thus cut transversely, and is kept close up to the knives by spiral springs, one of which is at each end of the machine.

The Paper Duty.—The duty upon paper is 14l. 14s. per ton, which is a little more than 1½d. a pound. The total produce of this tax in 1850, was 852,996l. 13s. 10d. It is needless to remark, that in proportion as the price of books and other publications is diminished, the proportionate amount of duty with which they are oppressed increases; and it may not be uninteresting to the readers of "THE PEOPLE'S ILLUSTRATED JOURNAL," to know that the net paper duty upon that publication is one to the extent in round numbers, of ten shillings per thousand, to say nothing of the expensive and vexatious processes of weighing and re-weighing, and the interest upon money paid. Upon this score, a Scotch manufacturer states:—"The mode of charging the duty, the surveillance of the excise officers, the delays in sending goods to market caused by these rules and regulations, the weighing, labelling, numbering, re-weighing, &c., besides heavy penalties which may very inadvertently be incurred, form altogether a most burdensome and oppressive yoke, adding very materially to the labour and expense of carrying on the business."

Mr. Baldwin says:—"It costs me in labour alone, to help to charge myself with the duty on paper, above 100l. a year. I make about twelve tons per week; and in consequence of these Excise Laws have to weigh every ream four times over, besides taking the number of every ream, and writing the weight on each."

Mr. Charles Knight in his interesting pamphlet, *The Struggles of a Book*, makes the following calculation upon the subject:—"Mr. Mac Culloch and Mr. Porter rightly state that the price for a ream of one particular sort of printing paper was, in 1831, 1l. 4s.; in 1843, 15s. 6d. From 1833 to 1837, the price of a ream of Penny Cyclopædia paper was 1l. 13s.; from 1838 to 1846, it was 1l. 4s. The difference in price was 9s. per ream; the amount of reduced duty was 4s. 4½. The paper-makers and the stationers doubled the tax."

But all the above mass of grievances does not comprehend a tithe of the mischiefs resulting from this tax,—a tithe of its obstructiveness of intellectual and art progress. One further instance we will now mention in conclusion, which is of importance to ourselves, and perhaps may be considered worth notice by our readers. The desirableness of having paper of a good quality, with a fine, smooth surface, for the purpose of printing must be admitted by all, but it is especially urgent when wood engravings are given, as in the present Journal. The non-technical reader may not be aware that all paper manufactured for the use of the printing press undergoes a sort of spoiling process before it is used, in consequence of the tyranny of the exciseman, who will have his pound of paper, whether it be really paper, or simply water soaking in the fibre of the paper. The printer requires the paper to be damped to a certain point in order readily to take the required impression, but the paper-maker is obliged to dry his paper thoroughly before it is weighed by the exciseman, in order not to pay an excess of duty. The consequence is, that the printer, on receiving paper from the paper-mill, is obliged to damp it again by a clumsy process which spoils, to a great extent, the fair face of the article. Anxious for the appearance of their new Work, and also desirous to illustrate practically a ground of real and serious complaint, we have caused the sheets required for our present purpose to be sent up damp and fit for use without wetting. The experiment was worth trying, although it incurred the payment to the exciseman of an additional sum of some three shillings per thousand sheets—not for paper, but for water! Let us hope that, before long, the Chancellor of the Exchequer will dip his sponge in water, and wipe out for ever a tax so trumpery in amount, and withal so obnoxious in character and demoralising in its results!

THE GOVERNMENT SCHOOLS OF DESIGN.

A CIRCULAR, dated February, 1852, has been issued from the Board of Trade (under Mr. Labouchere), announcing the appointment of Mr. H. Cole, C.B., and Mr. Redgrave, A.R.A., as "Superintendents of Schools of Practical Art," by which title "Schools of Design" are in future to be called. The Superintendents' duties are described as follows:—

"It is his duty to place himself in communication with the manufacturers, both in London and in the country, whose operations are connected with ornamental art; to make himself acquainted with their special wants, with a view of enabling the schools, as far as practicable, to supply them. He is to communicate with the different local committees, managers of institutes, &c., in order to ascertain their wants, to recommend the courses best adapted for rendering those institutions practically useful to the manufacturers of the district in which they are placed, and to stimulate local exertions and voluntary associations for the establishment and support of schools of art, and rendering them, as far as practicable, self-supporting. He is to visit and inspect the head school and female school, in London, and the branch schools and other institutions to which Government grants are made, and to report to my Lords on their condition, management, and progress; on the attendance of the masters, and the mode in which their duties are discharged; and on the preservation and arrangement of the collections of works of art in the possession of the schools; and to ascertain the necessity which exists for their creation, and the amount of local support which may be expected in order that my Lords may be enabled to decide upon the expediency of establishing such schools. He is to regulate the admission of students into the head school, under the sanction of my Lords; and is specially to attend to all matters relating to the general management of the schools, including the correspondence, reports, circulars, &c., which arise out of such business."

We shall, in an early number, discuss the propriety of these appointments, and the policy propounded by the nominees.

SUPPOSED TIDINGS OF SIR JOHN FRANKLIN'S SHIPS.

A GOOD deal of excitement has been occasioned in the professional and scientific world by statements which have been made, to the effect of two vessels having been seen high and dry on an iceberg, so long ago as April, 1851, by the crew of a vessel called the *Renovation*, when in the neighbourhood of Cape Race, and supposed to be the *Erebus* and *Terror*. The Lords of the Admiralty have very thoroughly sifted the story, which the delay which had been suffered to elapse before it was brought to their knowledge, seemed to invest with suspicion; and the results of their inquiries tend only to confirm the statement in every particular. The following are the facts as related by Mr. Simpson, late mate of the *Renovation*, to Commander J. J. Palmer, and communicated by him to the Secretary of the Admiralty:—

"(Copy.)

LIMERICK, April 9, 1852.

"The instant I received your letter this morning I proceeded to Limerick, and went on board the British Queen, where I found Mr. Simpson, late mate of the *Renovation*. He states as follows:—

"On the 20th of April, 1851, at six a.m., I saw two full-rigged ships (one about 500 tons, the other 350) on an iceberg, high and dry, the larger one on her beam-ends, head to the westward, three ships' lower masts only standing with bowsprit, masts painted white, apparently not housed over; the smaller one was about 350 tons, head to the south, with lower and topsail yards across, sails unbent, topmast on end, yards very square and black, not housed over, nearly upright; both vessels apparently abandoned. The *Renovation* was then about thirty miles to the eastward of Cape Race, and the iceberg about five miles north-west. The master was sick in bed, and when Mr. Simpson called him and stated that two vessels were in sight on an iceberg, he was too unwell to take any notice, and answered, 'Very well;' Mr. Simpson, therefore, did not like to take the responsibility of bearing up to examine the vessels. The log on board the *Renovation* was kept by the mate (Mr. Simpson), and these circumstances were entered by him in the log; he thinks it is still in possession of Mr. Emanuel Young (the owner), at North Shields. I beg to inclose a sketch made by Mr. Simpson of the position of the two vessels, both of which appeared to be painted black. I have also examined Thomas Davis, now a seaman on board the British Queen, and who was at the wheel on board the *Renovation* when the vessels were observed, who entirely corroborates, word for word, the statement made by Mr. Simpson; but with regard to the other questions in your letter both are unable to answer them. I close this in great haste to save this evening's post, with a *Limerick Chronicle*, with an extract of Mr. Lynch's letter to Mr. Creilly in it; the original letter, I fear, is lost.

"JOHN JERVIS PALMER, Inspecting Commander."

The extract from the *Limerick Chronicle* enclosed is as follows:—

"LIMERICK CHRONICLE, May 28, 1851.

"Extract from a letter from a passenger who sailed from this port to Quebec in the *Renovation*, on the 6th of April last:—

"QUEBEC, May 9, 1851.

"We arrived here yesterday, after a passage which, for the first 13 days, promised to be one of the speediest almost on record, having been two miles to the west of the Bird Island in the Gulf at the time we met the ice, and having been for 16 days coasting along it, with a fair wind ever since, it has been very rough, and a number of ships have suffered severely; indeed, to attempt to give any description of the ice would be useless. We have sailed for 60 miles of a stretch seeking an opening without being able to effect one, which was most vexatious, as, had we not met with it, we should have made the passage in 15½ days. The icebergs we met with were frightful in size, as the bases in some of them would cover three times over the area of Limerick, and I do not at all exaggerate when I say that the steeple of the cathedral would have appeared but a small pinnacle compared to the spires of some of them; and most to be regretted is that we met, or rather saw at a distance, one with two ships on it, which I am almost sure

belonged to Franklin's exploring squadron, as, from the latitude and longitude we met them in, they were drifting from the direction of Davis's Straits. Was there but a single one, it might have been a deserted whaler, but two so near each other they must have been consorts. They were to windward of us, and a heavy sea running at the time, with thick weather coming on, so that we could not board them."

Accompanying is a copy of the sketch received by the Admiralty from Mr. Simpson, who was the mate of the *Renovation*, and who saw the vessels and reported them to Captain Coward.



Larger ship, about 500 tons; three lower masts and bowsprit standing: fifty yards from the edge of the ice.
Smaller ship, about 350 tons; lower and topsail yards across topmast on end: both ships close together.

MEMORIALS OF THE DANES IN LONDON.

MR. WORSAAE,* who, by desire of King Christian VIII. of Denmark, in 1846 made an archaeological exploration of Scotland and the British Isles, observes that the Dane who wanders through London will be reminded by Denmark Court, Denmark Street, and Copenhagen Street, of the connexion between England and Denmark in modern times; while memorials of the earlier occupation of London by the Danes and Northmen are numerous. At St. Clement's Danes, in the Strand, called in the middle ages *Ecclesia Sancti Clementis Danorum*, "the Danes in London had their own burial-place, in which reposed the remains of Canute the Great's son and next successor, Harald Harefoot. When, in 1040, Hardicanute ascended the throne after his brother Harald, he caused Harald's corpse to be disinterred from its tomb in Westminster Abbey, and thrown into the Thames, where it was found by a fisherman, and afterwards buried, it is said, 'in the Danes' churchyard in London.' From the churchyard it was subsequently removed into a round tower which ornamented the church before it was rebuilt at the close of the seventeenth century." The author considers the church to have been named not because so many Danes were buried in it, but as it is situated close by the Thames, and must have originally lain outside the city-walls, the Danish merchants and mariners who, for the sake of trade, were then established in London, had here a place of their own, in which they dwelt together as fellow-countrymen. This church, too, like others in commercial towns, as at Aarhus in Jutland, at Trondjem in Norway, and even in the city of London (in Eastcheap), was consecrated to St. Clement, who was especially the seaman's patron saint. The Danes naturally preferred to bury their dead in this church, which was their proper parish church. The present church bears in various parts the emblem of St. Clement's martyrdom, the anchor, with which about his neck he is said to have been thrown into the sea.

Mr. Worsaae then refers to the possession by the Danes and Norwegians of Southwark, the very name of which is unmistakably of Danish or Norwegian origin:—"The Sagas relate that, in the time of King Svend Tveskjæg, the Danes fortified this trading place; which evidently, on account of its situation to the south of the Thames and London, was called Sydvirke (Sudrvirki), or the southern fortification. From Sudrvirki, which in Anglo-Saxon was called Sud-geweorc, but which in the Middle ages obtained the name of Suthwerk or Swerk, arose the present form—Southwark. The Northmen had a church in Sudrvirke, dedicated to the Norwegian king, Olaf the Saint." Mr. Worsaae then refers to Tooley Street, a corruption of St. Olave's Street; and St. Olave's Church, which is mentioned by that name as early as the close of the thirteenth century.

Within the City, or ancient London, are three churches consecrated to St. Olave; namely, in Silver Street: at the north-west corner of Seething Lane, Tower Street; and in the Old Jewry (St. Olave's Upwell). "In the same neighbourhood, near London Bridge, there is also a church dedicated to St. Magnus the Martyr, which likewise undoubtedly owes its origin to the Northmen, either the Norwegians or Danes. St. Magnus was a Norwegian jarl, who was killed in the twelfth century in Orkney, where the cathedral in Kirkwall is also consecrated to him."

Mr. Worsaae also mentions Lambeth (formerly Lanbythe), which in the Danish time was a village adjacent to the capital; and relates how, in 1042, a Danish jarl celebrated his marriage at a country house here, and how King Hardicanute, with a number of his followers, was present at the banquet; but just as he was drinking to the bride, he suddenly fell to the ground in a fit of apoplexy, and shortly afterwards died in his twenty-sixth year.

We have confined ourselves in the present notice to points relating to the great Metropolis; but the researches of the author are equally careful and fruitful over the rest of the empire. His work is, therefore, an extremely interesting addition to the literature of history.

* An Account of the Danes and Norwegians in England, Scotland, and Ireland. By J. J. A. Worsaae, For. F.S.A. London. Murray, 1852.

Miscellaneous Notices.

DESIGNS BY RAPHAEL AND MICHEL ANGELO AT LILLE.

It was fortunate for the Town Museum that the painter, M. Wicar, one of the members of the Art-Commission sent by the Emperor Napoleon to Italy, was a native of Lille. At his demise, he bequeathed to that city, what may be called rather a museum than a collection of original designs, collected by him in that country. This set of drawings contains 1200 specimens, viz.: 86 Raphaels, 197 Michel Angelos, 6 Andrea del Sartos, 9 Bandinellis, 1 Jean Bellini, 8 Annibal Carracis, 2 Corregios, 17 Carlo Dolcis, 10 Fra Bartolomeos, 15 Francias, 6 Guercinos, 8 Guido Renis, 5 Ghirlandaios, 3 Julio Romanos, 5 Leonardo da Vincis, 13 Masaccio, 1 Pahma Vecchio, 5 Parmesanos, 1 Paul Veronese, 1 Perugino, 6 Poussins, 2 Tintoretos, 8 Titians, 2 Albert Durers, 3 Lucas de Leydens, 1 Rembrandt, &c.—a collection unmatched, as the circumstances under which it was made will not occur again. Amongst the finest of the fine are the first pen and ink sketches of the Madonna della Sedia, by Raphael, as well as the Madonnas della Casa d'Alba, and de la Perla; the sketches for the frescos, the School of Athens, the Parnasse and the Zodiac. We find of the same master the original sketch of the St. Nicola di Tolentino, a picture which was subsequently made by Raphael for the Augustine Church of Civita di Castello. Most interesting is another sketch on a sheet of paper, on the rear of which is an autograph letter addressed by Raphael to his friend Dominico Paris Alfari, a painter of Peruggia, and in which he requests him to execute it on canvas. Astounding is a collection of 200 leaves from the architectural *cahiers* of Michael Angelo; further, a drawing of the cupola of St. Peter's of Rome, a sketch of the Prometheus, and the sketches for his "Last Judgment." Other great curiosities of this collection are a first sketch of the picture, "The Continence of Scipio," by Julio Romano, showing the figures in their naked position, which were subsequently covered with drapery. Of Leonardo da Vinci are some studies in pen and ink and water-colour, of an extreme fineness and delicacy of touch. The most extraordinary, however, because unique specimen of the collection Wicar at Lille, is the bust of a young woman, modelled in wax and coloured. Its appearance is described as bewitching and surprising, and thence and from the rich sources which M. W. seems to have possessed, it has been generally ascribed to Raphael—as only he has portrayed figures intermediate between earth and heaven, the woman and the angel. It is further conjectured, that as the Romans, in the times of the emperors, were in the habit of exhibiting in the vestibule of their palaces during their festivals wax busts of their ancestors, so Raphael might have thought of imitating this custom in modelling the head of this Roman patrician of his time."—*The Builder*.

THE BARRIERE DE L'ETOILE.—We learn from Paris that the Triumphant Arch at the Barriere de l'Etoile is at length to be finished *à la Napoleon*. M. Pradier, who had several works in the Great Exhibition, has been entrusted with the execution of the work; and if the model sent by him to the Ministry of the Interior be adopted, the emperor will be represented in his coronation robes, holding the sceptre in one hand and the globe surmounted by a cross in the other. The figure will be seated on an eagle placed on a trophy of arms rising out of a thunder-cloud.

PICRIC ACID AS A YELLOW DYE.—M. Guinon, of Lyons, has succeeded in dyeing silk light and medium yellows by means of this acid. His attention was first directed to the subject by observing the yellow colour which it communicates to the skin. This acid has been known under various names, such as *Wetter's bitter*, *bitter yellow*, *indigo bitter*, *carbazoic acid*, &c. It is produced by the reaction of nitric acid upon a variety of organic substances, such as indigo, aloes, silk, tar, oil of coal. Silk mordanted with a mixture of alum and cream of tartar takes a fine straw yellow from solution of picric acid. It may be washed several times, but is discharged by weak acids, alkalies, and chloride of lime. It is not affected by exposure to the sun and air. Wool takes a more intense tint than silk, a fine citron yellow: 3.73 grammes of picric acid give this shade to one kilogramme of wool. If a mordant of alum and cream of tartar has been previously applied, the colour resists washing and the action of the sun and air, but is, nevertheless, discharged by chemical agents. Cotton, whether mordanted or not, is not coloured by picric acid.—*Artisan*.

We regret to learn that Professor Wilson has resigned his office of Professor of Moral Philosophy at Edinburgh, on account of ill health.

RAILWAY PROGRESS.—The directors of the South-Western Railway, in order to encourage the erection of cheap suburban dwellings, have resolved to contract with persons building such houses in the vicinity of the line for the issue of residential tickets for any given number of years, the same to be transferred, with the key of the house, to the occupier, for the conveyance of himself and family.

PROJECT FOR RAILWAYS IN PORTUGAL.—The commissioners appointed by the Government of Portugal to consider the question of constructing railways in that country, have reported highly in favour of so doing, as tending to increase the national wealth, by promoting agriculture, trade and manufactures. The first project, of course, would be to connect Lisbon with Madrid and Paris, which would bring the capital of Portugal within sixteen hours' journey of that of Spain, and forty-three hours of the French capital, and, consequently, within fifty-seven hours of London; whereas, the time occupied by the packet service at present, is from five to six days between London and Lisbon. The projected route for the parent or trunk line, "would be from Lisbon, along the right bank of the Tagus, which it would cross between Santarem and Abrantes, continuing to Badajoz, and there join the line from Madrid to the frontier. Intermediate lines would also run through Thomar to Coimbra, by the valley of the Mondego through Vizen, entering Spain to the north of Almeida, with branches to Porto and Algarve." The estimated cost of this line is 1,500,000*l*.

THE PRUSSIAN RAILWAYS.—The inconvenience occasioned by the stoppage of railway traffic during the night in Germany, is well known to travellers. We are glad to find that the Prussian Government are taking the subject up on the "keep moving" principle, as the following extract will show:—"The Prussian Minister of Commerce has ordered the directors of the Berlin and Hamburg line to run a night train between the two cities, according to an authority vested in him for regulating the facilities of the intercourse. The directors, however, alleging that the traffic would not cover the additional expense, have refused to obey the order, and prefer paying the fine of 200 thalers for every day of disobedience. They intend besides to try the question of the authority of the ministry on this point in a court of law."

LECTURE ON IRON.—Mr. S. H. Blackwell, F.G.S., of Dudley, lectured lately at the Society of Arts, Adelphi, on "the Ironmaking Resources of the United Kingdom." The lecturer, after a passing reference to the principal features of the Great Exhibition of 1851, took a rapid view of the rise and progress of the iron manufacture in this country, which was divided into two periods,—first, from the earliest ages up to the time when coals, instead of charcoal, were first attempted to be employed as smelting fuel,—and second, from that to the present time. The lecturer said it was impossible not to be struck with the vast and apparently inexhaustible supplies of iron and fuel which we possess, and with the wonderful fact that the extraordinary demand which railways and other requirements have produced, should have led not to an increased price, but to a constant discovery of new and cheaper sources of supply. He remarked that the iron trade illustrates what would seem to be a general law—that the natural resources of the world appear to be developed at the exact times when the progress of society most requires them, and when that progress is such as to enable us to avail ourselves to the greatest advantage of new discoveries. This was illustrated by allusion to the progress of the iron trade, railways, steam-boats, electric telegraph, the vast gold discoveries, and the rapid colonisation of Australasia and America, as also the progress which was making, and must rapidly extend, in our Indian possessions, where every mile of railway laid down will lead to an ever increasing demand, "all tending," to use the words of H.R.H. Prince Albert, "to the accomplishment of that end to which indeed all history points, the realisation of the unity of mankind."

SUBMARINE TELEGRAPH BETWEEN ENGLAND AND IRELAND.—There are now three projects in the field for this purpose, two of them being in connexion with the Electric Telegraph Company, who have a choice of routes, one of about 64 miles between Holyhead and Kingstown, and another of 21 miles between Portpatrick on the coast of Scotland and Donaghadee. The latter will require 44 miles less of wire than any other route, and will consequently be carried out at half the time and cost, and be completed it is expected before June.

STEAM COLLIERIES.—Several influential men, interested in the coal trade, have formed a large company in London to build iron screw colliers, to enable them to compete with the railways. These vessels are to run between Newcastle and London, and, it is expected, will supersede the present sailing colliers.

KENNINGTON COMMON.—A Bill has been brought in to empower the Commissioners of Works and Public Buildings to inclose and lay out Kennington Common as pleasure-grounds for the recreation of the public.

STEAM PLOUGH.—The *New York Courier* states:—"Mr. Alexander T. Watson, a native of Cromarty, in Scotland, has devised a locomotive steam ploughing machine, which, if the operator desires, will also do the work of sowing and harrowing at the same time. The model exhibited by him, at 38, Wall Street, is constructed to drive twelve ploughs, and, in land suited to its operations, a single machine will work over from thirty to forty acres a day."

INDUSTRIAL EXHIBITIONS.—The principle of Industrial Exhibitions is making way everywhere. The German papers state that an Exhibition of Silesian Art and Manufactures is about to be got up at Breslau, in a glass house on the principle of the Crystal Palace.

PROPOSED INDUSTRIAL EXHIBITION AT CORK.—The stimulating effect of the Exhibition of last year is very visible in the fact (to which we have already alluded) that the south of Ireland—the quarter that sent least to the Crystal Palace—is making great efforts to have an Exhibition of its own in the month of June. Since we last noticed this undertaking, symptoms of great activity have been exhibited for its promotion, and the proposed Exhibition has been opened to all Ireland. Sir Robert Kane, the President of Queen's College, Cork, is one of the most active supporters of the proposal; and, after hearing a statement on the subject, Lord Clarendon so much approved of its utility as to give his own private subscription of 50*l*. towards the undertaking. The present Viceroy of Ireland has since been waited on, and he has undertaken to open the Exhibition in person. There has been more canvassing for patronage of this Exhibition than we can quite approve of:—but we are willing to make some allowance on that head for a country that has not yet realized the advantages resulting from steady self-reliance. The utility of the Exhibition will consist in its tendency to awaken an industrial spirit in a locality very backward; and we have reason to think that many parties not heretofore caring for industrial progress are in consequence of this movement beginning to fix their attention on those permanently useful measures which can best benefit Ireland.—*Athenaeum*.

EXHIBITION OF THE SCHOOLS OF DESIGN.—We understand that the Board of Trade have decided on awarding medals to the producers of meritorious pieces at the forthcoming Exhibition of the works of the students of the Schools of Design at Marlborough House. Hitherto the prizes have been limited to the students of the provincial schools. The President of the Royal Academy and Mr. Macleise have consented to act as honorary examiners of the students' works on the coming occasion, in co-operation with Mr. Redgrave, the Art-Superintendent.

A VALUABLE BRICK.—A journeyman mason, lately employed on some repairs to a chimney in the Rue des Francs Bourgeois, Paris, broke up a brick which he found loose in the chimney, and, to his surprise, discovered that it was hollowed out, and contained a bank note for 500 francs. The workman honestly communicated the fact to his employer, who called to mind that he had written to his uncle, at Amsterdam, for money, and had received nothing but the brick in question, which he indignantly threw into the chimney, and wrote to his uncle an angry letter, to which no answer had been given. In Holland, it seems, hollow bricks are made on purpose to send small sums of money in, as making a more secure package than any other.

CAUTIOUS ADMINISTRATION OF CHLOROFORM.—The *Lancet* notices two modes of administering chloroform,—the dangerous and the safe. One consists in using a small quantity of it, to be inhaled in a very short time with hardly any admixture of atmospheric air. Patients are in this manner quickly rendered insensible. This method is dangerous; and though but comparatively few accidents have occurred, the latter have struck such terror into practitioners and members of the community, that this mode should never be followed. Chloroform should first be inhaled with a large quantity of atmospheric air; respiration is allowed to go on regularly and normally, the chloroform is then gradually inhaled in a more concentrated form, and left off as soon as any unpleasant symptoms occur. Eight or ten minutes, and from three to five drachms of chloroform, are thus employed in obtaining anaesthesia; but this loss of time and chloroform is made up by the absence of danger.

We are informed that the Post Office authorities do not deem it expedient to adopt Mr. Lake's suggestion, for allowing manufacturers to transmit patterns at a reduced rate through the Post Office.

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THE PEOPLE'S ILLUSTRATED JOURNAL

OF

Arts, Manufactures, Practical Science, Literature, and Social Economy.

No. II.

SATURDAY, MAY 8, 1852.

PRICE TWOPENCE.

NEW STATUETTES IN STATUARY PORCELAIN.

BY MESSRS. COPELAND AND CO.

WE have great pleasure in producing engravings of two new statuettes in statuary porcelain, which have just been finished and about to be issued by Messrs. Copeland and Co.

It is a remarkable and gratifying fact that so much has the taste of the public increased for works of this elegant character, that the manufacturers are now enabled to pay artists of standing for original designs, instead of resorting to the copying of existing subjects more or less known.

The statuette of "Little Nell" was modelled by J. Sherwood Westmacott, Esq. The little heroine of Dickens's "Curiosity Shop" is represented as in the church, a short time before her death. The original is to be seen in the Exhibition of the Royal Academy for the present year. The figure is 12 inches high. The "Psyche Disguised" was modelled by Edgar Papworth, Esq.; the figure is extremely pretty, and graceful in treatment; height 14 inches.



LITTLE NELL, BY J. S. WESTMACOTT.



PSYCHE DISGUISED, BY E. PAPWORTH.

RECREATIONS IN GEOLOGY.

NO. I.—THE INTERNAL HEAT OF THE EARTH.

TRUTH is the genius of poetry as well as of science. With the ideal, fiction would seem to have a home awhile, but a strange fate hovers over the mind of man, compelling ever to the utterance of truth, and strive as he may, fiction and fable are both beyond his invention. It pleased the days of our ignorance to count the legends and mythologies of old as things fabulous—mere weeds of the fancy—things unreal, and hence intangible. Yet, one by one, do the wild stories of the bards and the airy creations and creeds of bygone nations

shake off their vague garments and stand forth as representatives of truths. They are, in fact, emblems and memorials of the wisdom of antiquity, requiring only a correct translation to admit us at once into the secret chambers of nature. Weeds they may be, but when their kind is known they are found to be rooted in the universal mould of the world, and to have a place in its circle of teachings. The first fable is a picture of the latest fact, and what we teach in dry formulæ as the latest fruits of our research, the first man taught as truly in symbol and metaphor. Hercules and his twelve labours is but an impersonation of the sun performing his passage through the twelve signs of the zodiac. Osiris is the genius of husbandry, and typifies the

industry which enables man to complete the conquest of the earth. In the same manner Vulcan and his fiery forge, and the whole troop of Cyclops chattering eternally amid the blazing metal, are emblems of the forces of nature, and chiefly of those hidden internal fires which lie pent within the bowels of the earth. Of these great agencies the men of old were cognisant, and those doctrines which ascribe the creation of all things to simple elementary forces, are as true now to the man of science as they were then to the philosophical rhapsodist. Volcano, earthquakes, boiling springs, gave striking evidences of a common origin, and when it was admitted that below the shell or crust of the globe, the materials were in a state of molten fire, ever ready to eject their melted streams through any fissure in the surrounding surface, the phenomena of volcanic eruption, earthquake, and boiling springs received a common explanation:—

"So when the Cyclops o'er their anvils sweat,
And their swollen sinews echoing blows repeat,
From the volcano gross eruptions rise,
And curling sheets of smoke obscure the skies."

There are, however, stronger reasons for the adoption of the idea of an internal fire than those which the existence of volcanoes afford: the structure of the earth's crust, and the arrangement of its rocky strata, the temperature of mines and the shape of the earth in itself, all tend in the same direction; while the most cautious deductions from the accumulated facts of geology carry us back to the emblems and doctrines of antiquity, and bring us to the conclusion that fire has been the chief of the forces by which our earth has been brought to its present diversified and habitable condition. Though admitted on all hands that fire has played an important part in the past history of our globe, yet more than one eminent geologist has adopted the opinion that whatever heat may have been embowelled in the earth has long since died out; and that the outbursts of volcanoes, in common with hot springs and earthquakes, are to be attributed to partial and not general causes, of which chemical combinations may be regarded as the chief. Much anxious enquiry and earnest thought on this subject induce us to go back to the cherished notion of antiquity, and though positive proof on the subject is equally beyond the reach of us all, we think we shall be able to make out so strong a case for the existence, at the present time, of a great fire below the surface of the earth, as to set aside the arguments, however strong, of those who take an opposite view.

In the first place, an explanation, by means of chemical forces, of the characteristics of volcanic eruption is rendered almost nugatory by the fact of the general distribution, all over the earth, of volcanoes; in the Arctic regions, on the islands and in the depths of the Pacific, in Central Asia, South America, the West Indies, and Africa. If certain ingredients meeting together, as phosphorus, sulphur, chlorate of potash, and others of a combustible nature, are to be regarded as the causes of volcanic eruptions, then we must suppose that these materials exist in exactly the necessary proportions, and are enabled to come together in exactly the necessary conditions, to cause explosions in every one of these many localities; a conclusion which the simplest acquaintance with the products of eruption, and the diversified arrangement of the rocky strata, renders exceedingly forced and doubtful, and throws us back to seize for some common cause of phenomena having so many corresponding characteristics. Earthquakes are most common in districts near volcanoes, and appear in most cases to be connected with them; shocks of earthquake frequently accompanying the outbreak of volcanic fires. To attribute each of these occurrences to the accidental flow of water upon beds of potassium, or the meeting together of elements which in combining acquire explosive properties, we must limit the commotion to one spot, whereas in earthquakes the surface of the earth is frequently rent for many leagues, indicating that some great central cause is operating, rather than any agency so partial as chemical combination may fairly be supposed to be. The earthquakes which occurred in Sicily in October, 1835, travelled 100 miles in half an hour, producing at the same time immense volumes of watery vapour, and giving rise, as earthquakes usually do, to sounds resembling thunder.

These are indications of forces now existing and operating, and it requires no great stretch of the imagination to link them with those mighty upheaving fires, which, in the past eras of our globe, belched forth huge hissing mountains of molten rock, leaving the titanic masses piled up in wild disorder, to cool in the breezes and the showers, and to wear for ever the snowy crowns which now rest upon their peaks. That the igneous rocks owe their formation to the agency of fire, the crystalline structure and absence of organic remains sufficiently prove; and in the columns of basalt, greenstone, and porphyry, which have forced their way up through thick beds of stratified secondary rock, we may still see the scorplings and writhings of that intense heat, which, fighting for a passage, drove them like feathers before it, and left them piercing the beds of shale and sandstone like arrows,—memorials of its overwhelming power. It may be said that mechanical accidents might have brought these trap rocks into such a position as that they should appear to pierce through and protrude beyond those which formerly lay above them, but no crumbling, falling, and drifting, will explain why the rocks through which they appear to have passed should be scorched and blackened by contact with them.

The phenomena of hot springs are perhaps more forcible than any

other of the facts belonging to this class. Boiling springs, like earthquakes, are most frequent near volcanoes. The Geysers of Iceland are in close proximity to Mount Hecla; and the celebrated springs of Solfaterra—the steam of which is regularly used in the adjacent factories—seem to have more than a chance connexion with Vesuvius. It is a law established by all the experiences of artesian wells, that the deeper the source of a spring the warmer is the water which flows from it; and this not merely in an indefinite degree, but in a definite and ascertainable ratio. But that this is not a consequence of chemical action, witness the springs of Naters, North Wales, which rise at a temperature of 58° Fahrenheit; those of Leack, which rise at 72°; of Bageres, at 65°; of several in Chamouni and St. Gervaise, on Mount Blanc, at 53°; at St. Didier, Mount Blanc, at 50°; and at Aix les Bains, at 70°; all of which afford pure water, uncontaminated with any agent which might have given rise to heat. At Carlsbad the springs have a temperature of 165° Fahr., or nearly double the warmth of the human body, and none of the ingredients, while the water yields an analysis, account in any way for its warmth. At Aix la Chapelle, the waters rise at 143°; at Bath, at 114°; the warmest and most copious springs always rising near or upon the primitive beds of granite. Most mineral water contains lime, soda, common salt, and carbonic acid; of these the lime is the only one which could give rise to heat; and if we suppose beds of quick-lime to be slaked by water passing over or falling on them, then the springs would rise at boiling heat, whereas the warmest of the thermal springs are at least fifty degrees below boiling heat.

While the thermal springs offer such decided testimony of the internal heat, the temperature of mines, increasing with every increase of depth, affords the best elements for generalising these facts on account of the constancy of the heat and its steady increase downwards. In the artesian well at Grenelle, the temperature is equal to 84° of Fahrenheit at a depth of 1230 feet, and this in winter, when the air at the surface is not higher than 28° or 30°. Taking the mean temperature of the air for the year, Kupffer estimated the ratio of increase at Grenelle to be one degree for every 37 feet; the Durham and Northumberland mines give one degree for every 44 feet; the lead mines of Saxony one degree for every 65 feet; and the mine of Doboath, which is 1380 feet in depth, one degree for 75 feet. The United Mines, in Cornwall, afford some curious evidences of the steady increase of temperature below the surface. The mine at Gweunap, which yields abundance of copper ore, has a vast number of warm springs: one of these, which rises at a depth of 200 fathoms below the level of the sea, discharges 94 gallons a minute, at the temperature of 106½° Fahr., while on the other side is a spring which discharges 30 gallons a minute at the temperature of 97¾° Fahr. The air near both these springs was found to be at 104½° Fahr., the highest temperature hitherto experienced 106°. Taking the most general view of these facts, we may safely conclude that for some distance below the surface the heat of the earth continues to increase; and if we estimate this increase at one degree for every 45 feet, we shall be within, not beyond the truth.

That this heat is not a mere condition of the external crust of the earth, nor the result of partial and local phenomena, but of an universal subterranean fire, is shadowed out in the shape of the earth itself, which is not that of a complete sphere, but one bulging out along the line of most rapid motion. Measured through the equator the earth's diameter exceeds by twenty-six miles that of its breadth from pole to pole; and this is just the shape which a globe would assume, revolving rapidly on its polar axis, provided its internal parts were sufficiently fluid to yield to the rapid whirl of its revolutions. Now, supposing the crust of the earth to be 100 miles in thickness, and all below that to be a seething mass of molten rock, any change upon the surface of the earth, acting on a crust so thin and hollow, would cause rents and fissures, through which the fire itself would burst and rage upon the surface until the falling masses closed the chasm again. An invisible but potent agent is ever ready to create this disturbance and afford the necessary conditions for earthquake and volcanic fire; and this agent is no other than the soft yielding atmosphere, fanning the cheek to-day with its odorous coolness, to-morrow rooting up a forest, and hurling its timbers to the skies. On every square inch of the earth's surface the atmosphere presses with a weight of fifteen pounds; that is equal to 2160 pounds, or about one ton, for every square foot; or for the whole earth, 12,043,468,800,000,000,000 pounds. Suppose the barometer to fall two inches over 100 miles of country, that fall of two inches represents the removal of 1,858,560,000 tons of pressure; the expansion of the heated materials continuing the same, are no longer held down and confined by this invisible jailor, and shocks of earthquake follow, with crackings of the earth; precipitation into one great gulf of cities, hills, and fertile plains; thunders, sheets of steam, rollings of the surface, and innumerable convulsions, till the elements return again to their normal condition. It is a curious fact in connexion with this conjecture, that earthquakes usually take place in connexion with a fall of the barometer.

Go back once more to geological antiquity, and picture the earth a heated mass, its crust yet uncooled, and its waters in constant ebullition. Evaporation would be rapid, clouds would accumulate, and rain descend. The cool rain falling on the wide plains of red-hot soil would cause them to crack and sever into zigzag seams; the water would flow through the rents upon the still hotter mass below; steam would be generated and fight for its escape, and in the sharp struggle the fiery tide would be protruded; and in the hour of this convulsion would be built up those granite peaks which now cram the world and pierce the heaven with their pinnacles of snow. The thickness of this crust,

which we have estimated at 100 miles, must of course be increasing as the earth parts with her heat. If the earth, in its present condition, were projected into a medium having a temperature of 53 degrees below zero, it would not cool more in 2,000,000 years than a globe 1000 feet in diameter would in one second of time; for how many ages, therefore, the cooling process has been already in operation, we leave to those wild fancies which claim no kindred with arithmetic. Supposing, however, that the crust of the earth has now acquired the thickness of 100 miles, and the increase of temperature to be one degree for every 45 feet, then, at a distance of 7290 feet from the surface, the heat will be sufficient to boil water; at 25,200 feet it will melt lead; at 7 miles it will maintain a glowing red heat; it will melt gold at 21 miles, cast-iron at 74 miles, soft iron at 97 miles, and, at 100 miles from the surface, where we suppose the fluidity to begin, the heat will exceed any with which man is acquainted,—not forgetting the intensity of the electric spark, or the continued action of a voltaic current, which melts platinum as if it were wax, and surpasses the power of man accurately to measure its intensity. And below this superficial crust rages a perpetual fire, near 8000 miles in thickness, and containing a vast quantity of rocky matter, fluid as water, under the presence of this subduing flame. The poets were not dreaming when they pictured the regions below as

"Overwhelmed
With floods and whirlwinds of tempestuous fire."

Before the earth had cooled down sufficiently to be clothed with greenness and be the abode of living things, the outer crust must have been extremely thin: then was the age of great convulsions, when the primary rocks were formed, and those great masses of granite laid bare on which now rest the later deposits which the waters have piled upon them. In this age we may conceive that the fractures of the surface were frequent, that volcanic eruptions were common all over the earth, and that immense permanent cracks were formed, such as those which now exist across the Pacific, which are still the abodes of earthquake violence; or those which extend from the West Indies down the coast of South America, where eruptions are common both on land and sea. A strange result of the gradual increase of the thickness of the crust would be, that, as the first outer shell would consolidate about the globe, and represent for ever the actual size of the earth, when that crust was formed; so, by the successive cooling and condensing within, by which the crust acquired its increasing thickness, contraction must thence take place also, and the crust at the present time must be considerably larger than the fluid sphere which it encloses, the disproportion growing greater with every accession of thickness to the crust. In this manner the earth becomes more and more hollow as it parts with heat, every particle of its fluid material becoming smaller as it condenses into a solid form. Hence for a time disturbances of the surface may be supposed to increase, as the crust becoming more and more hollow becomes more and more sensible of atmospheric and terrestrial disturbances, until, the crust acquiring such a degree of thickness and solidity, and the fire within so spent and wasted by the warfare in which it is engaged, earthquake violence will cease, cities will no more be swallowed by the embraces of the hills, villages no longer swamped in burning seas of lava, and man, tried by many ages of suffering, and beginning to realise those schemes of moral perfection which have filled his heart and soul with hope for thousands of years, shall find nature more peaceful also, and the earth physically fitted to be the moral paradise which he has so long amid sufferings and tears sought to make it.

Sea beaches are raised in one place and depressed in another. The whole country of Sweden has a zig-zag motion from north to south, by which each end is alternately raised and depressed, earthquake shocks still continue, and Vesuvius, as ever, pours forth liquid lava, and lights up the bay of Naples with wreathed flames and lightnings. Who knows but that the earth's bosom throbs as steadily as man's, often too under impulses more pure than those which make his breast beat? It is not an isolated fact, it is universal. The moon is in the same condition, and pours forth volcanic fires to the astonishment of the astronomer when viewing her in an eclipse. The planets are the same, all bulged as the equator, as though their inner parts were mobile and yielded to the whirling force which spins them round and round. The step is easy from this universal prevalence of fire to that supposed chaotic mist from which the worlds were born, and which was all fire—the burning breath breathed from the nostrils of the Omnipotent—the same breath which warms our hearts into summer love and our earth into summer verdure, and which, pent up within it, preserves it when the sun shines not, and keeps it rotund and fertile ever, instead of suffering it to shape into one large and lifeless crystal, which is the ultimate state of all matter where its heat is withdrawn. Who knows then after all whether this summer glow is born of the sun or world? especially when astronomers tell us that his body is as dark as the earth, and that the solar heat is more probably the radiation from within our globe, than any lustre falling upon it. Whether the same fire which pants down there seeking for an outlet is that which warms the surface to fertility and calls forth the troops of flowers and winged creatures, summer is still as beautiful, and except for this raging flame within, tempering the obdurate rock into a harmonious and shapeful mass, it is certain that the world would never have been fitted for the abode of man, but would have lain like a cold log upon the waves of space—lifeless, cheerless, and for ever silent. But the flame spread, and the rocks melted, and the rivers ran through the plains, and the earth cooled in the repose

of its own shadow, and life sprung up, and laughter made a sunlight in the world of sound, and the song of birds broke the silence of the wilderness—the same human laughter which throbs and thrills upon us now, the same song which now, as ever, forms the dawn of summer.

THE PALACE OF WESTMINSTER.—(Continued.)

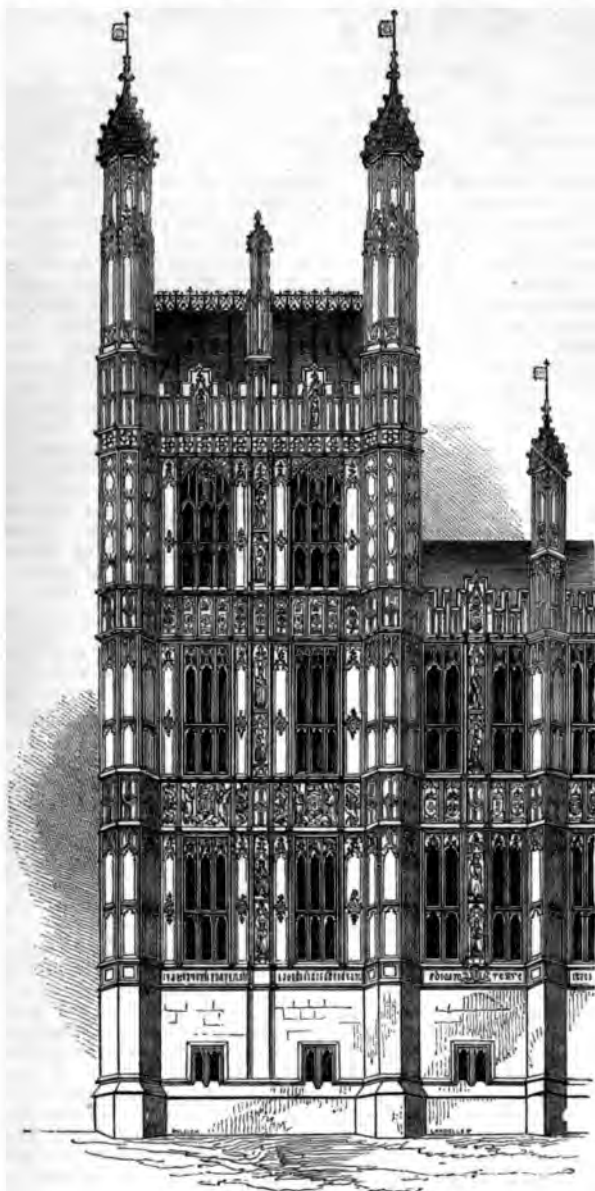
GROUND-PLAN OF THE NEW PALACE.

LOOKING at the plan from the river, you have the northern extremity of the piles on the right, abutting almost on Westminster Bridge and Bridge-street, and the southern, which is next to Abingdon-street, on your left. The river-front forms the eastern side; and the western side, occupying the whole length of St. Margaret-street and Old Palace-yard, faces St. Margaret's Church and Garden, Henry the Seventh's Chapel, Poets' Corner, (Westminster Abbey,) and a portion of Abingdon-street. The two projecting portions of the plan, at the ends of the river-front, are appropriated, that on the north to the Speaker's residence, and that on the south to the Usher of the Black Rod. The intervening portion of this front is occupied, as seen upon the plan, by the Libraries, the Conference and Committee Rooms, and the corridors of these. The buildings, forming three sides of the quadrangle of the Speaker's Court, immediately behind his residence, are intended for offices for various purposes connected with the parliamentary business of the House of Commons, and the official duties of the Speaker. Projecting from the west side of this quadrangle, is the base of the Clock Tower; and the wide space beyond, which is at present the position of a cab-stand, is New Palace-yard, in which you have the porch of Westminster Hall, built by Richard the Second, and restored by George the Fourth. Between the entrance to the hall and the quadrangle of the Speaker's Court, is a range of building to contain offices and residences of officers and servants. This portion forms the northern boundary of the Star Chamber Court; on your right, that is to the west, of which is Westminster Hall; and on your left, to the east, is the House of Commons. Between the latter and the river-front, are marked the Commons' Court, and the Commons' Refreshment Rooms. West of the hall, and further south, are situated the cloisters and the courts belonging to them, the Commons' courts and lobby, the Commons' corridor leading to the Libraries, and a number of apartments, not particularly named, for the accommodation of members, officers, and the messengers and attendants of the House. At the south end of Westminster Hall, there is marked upon the plan a double flight of steps, leading up to St. Stephen's Porch, from which, to the right, is another flight of steps leading westward into Old Palace-yard, opposite to Henry the Seventh's Chapel. Another flight, marked on the left of the plan, leads eastward from St. Stephen's Porch into St. Stephen's Hall, beyond which is laid down the floor of the Central Octagon. A passage, eastward from this, leads to the Commons' Waiting Room, which opens into the long corridors of the Libraries, &c., in the river-front. The range of building fronting Old Palace-yard, and extending from St. Stephen's Hall to the Victoria Tower, will be occupied with offices and apartments connected with the business officers and attendants of the House of Lords, and with two corridors which are named, respectively, the Chancellor's Corridor, and the Chairman's Corridor, the latter being designed for the passing and repassing of the Lords' Chairman of Committees, a functionary of the House, who, in the absence of the Lord Chancellor, acts as Deputy Speaker at the sittings of their lordships. Immediately south of St. Stephen's Hall is marked St. Stephen's Court, and between that and the river-front are contained the Lords' Corridor, with apartments on each side, the Peers' Inner Court, and other apartments and offices which have not yet been specifically named or appropriated. Farther south are marked the Lords' Lobby and Lobby Corridors, stretching east and west. Next, you observe the House of Lords itself, with corridors on each side. Beyond the West Corridor is the Judges' Court; beyond the east is marked the principal Court of the Lords; and west again of that, between its site and the Libraries, are the Lords' Refreshment Rooms. South of the House of Lords is the site of the Prince's Chamber, and beyond it, in a straight line, the Royal Gallery, and the Queen's Robing Room. East of the Royal Gallery is the Royal Court, and west the Chancellor's Court. Leading westward from the south end of this gallery is the Norman Porch, from which is the descent by the Grand Staircase to the Queen's entrance in the Porch of the Victoria Tower. West of the Queen's Robing Room, and branching off the Norman Porch, is the Guard Room. The base of the Victoria Tower here terminates the ground plan, at its south-west corner.

NORTH TOWER OF SPEAKER'S HOUSE.

This view gives a complete notion of the architectural elements and details of the river-front especially, and of all the level portions of the exterior, with the exception of the north end of Westminster Hall, and the south of St. Stephen's Porch, with a few other parts, such as in the yet unfinished south front, where the architectural detail is somewhat varied for adaptation to a peculiar character of enrichment. Above the basement, which is very plain, there are three tiers of windows, of which there are two in each story. These are lofty and of noble proportions, and the pair in the second story (as shown in our illustration) is separated from those over and beneath it by sculptured bands of great richness, filled with heraldic blazonry, which we here illustrate more clearly than they could be distinguished in the general view, by

engravings of two panels. The piers between the windows of each story have in the centre of their panelling canopied niches, which are doubled and each occupied by a statue. For the sake of clearer understanding we give also a separate engraving of one pair of those niches,



THE NORTH TOWER.

which will be sufficient to illustrate the character of these elements of decoration all over the building. In the description of the river front (in the first number,) we drew attention to the rich machicolation of the embattled parapet. Its character is fully illustrated in detail by the engraving of one entire compartment of the parapet, of which the whole range is but a continued repetition.

On the summit of the Tower, at the four angles, rise lofty turrets of rich detail, and surmounted by highly decorated pinnacles. As the height of each of these, from the level of the roof to the finial which terminates the pinnacle, is about thirty feet, leaving out the superadded flag-staff, one of these turrets, with its rich open-panelled centre story, surmounted by an elegant lantern and conical dome, would make a goodly tower and spire to a metropolitan district church of considerable size, and more than ordinary richness.

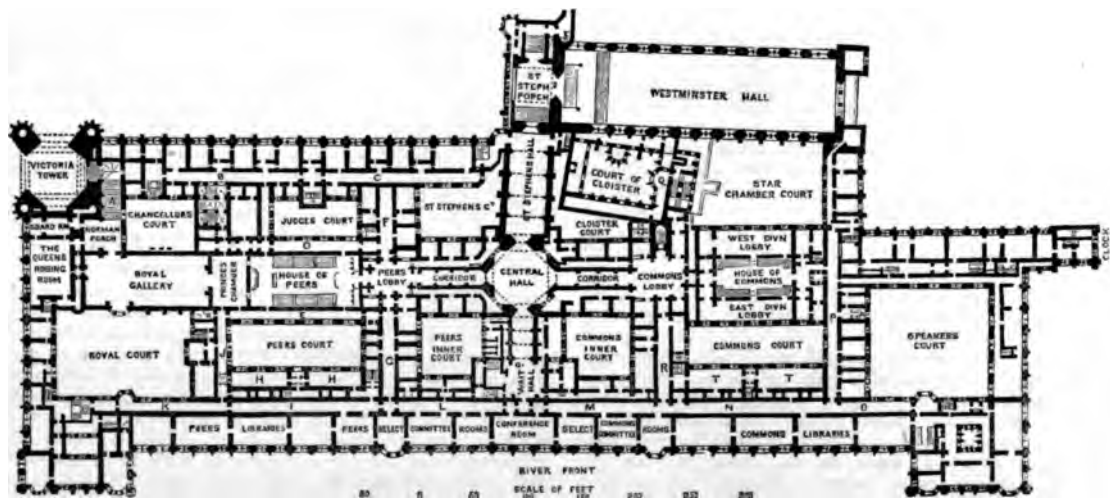
The reader will judge of this from the detached engraving which we give here, of a turret and its pinnacle, upon a scale sufficiently large to illustrate the details.

THE CLOISTERS.

Before we carry the reader further into the gorgeousness of the principal interiors of this great palatial structure, or examine more minutely the general features and various aspects of the exterior, it may be well to turn aside to the cloisters of the old Chapel Royal (St. Stephen's), which are not only worthy of exact attention and examination for their intrinsic beauties, and exciting the greater interest inasmuch as they are rightly styled "the very best unmixed production of indigenous English art,"—but present, as it were, a key to the due estimation of the architecture of the New Palace, internal and external, inasmuch as they present within their small dimensions the elements and principal features of the style which Sir C. Barry has essentially adopted for his building, that is, the "Tudor" of Henry the Eighth. The ceilings of the cloisters, as well as the apartments over them, and the walls of the Cloister-court, are, beyond all question, the architecture of Henry the Eighth. But all the superior grace and early refinement of the reigns of Henry the Third and the three Edwards who followed him, were evidently not obliterated when the Tudor set about the reconstruction of these charming appendages to the Chapel. In the time of Henry the Third a fire destroyed the Chapel and cloisters built by the Confessor on the site of that dedicated to his patron Saint by King Stephen, which Henry promptly restored. His restoration was in its turn destroyed, by fire also, in the time of his son, the first Edward, who commenced the rebuilding of the chapel, which, with the cloisters, was completed by Edward the Third; and we have the accounts of the cost of finishing those same cloisters, as kept by his surveyor, William de Chayllowe



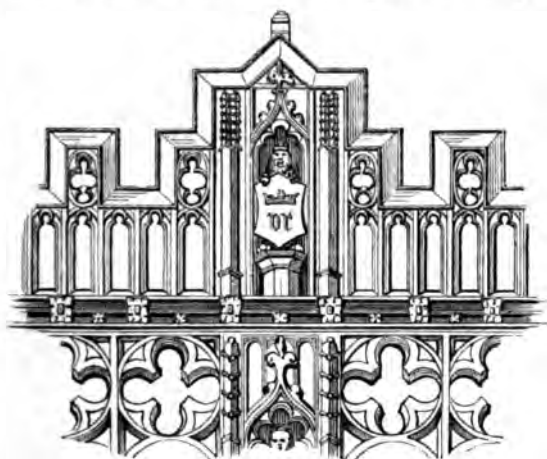
TURRET AND PINNACLE.—NORTH TOWER.



GROUND PLAN OF THE NEW PALACE, WESTMINSTER.

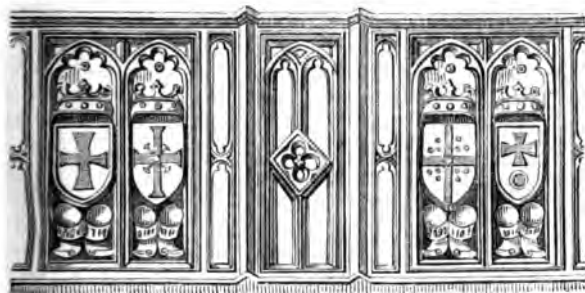
About two centuries afterwards, the cloisters were rebuilt under Henry the Eighth, in the form to which they have recently been restored by Sir C. Barry. They form four walks in a quadrangle of equal sides. In each cloister there are six windows looking into the court-yard, and

consist principally of two magnificent apartments *en suite*, divided by a double screen, which forms a picturesque and handsome Gothic



PARAPET.—NORTH WING.

between each pair of windows is placed a group of engaged clustered columns, whose fantastic capitals spread fanlike over the flattened ceiling. Opposite to each cluster, between the windows, there rises a similar group, branching similarly from the capitals over the ceiling, the intervening spaces upon which are filled with circular mouldings, each enclosing a large rose, so placed as to look, at first sight, like an



HERALDIC PANEL.

imitation of the boss at the intersection of the groings of a vaulted Gothic arch. The columns at the angles are of a different character, and a degree more simple. The external walls in the court-yard have two tiers of windows, those in the second story being much more ornate than the windows below, which are those of the cloisters. Between each pair of windows rises a richly finished buttress with a lofty pinnacle, and a highly decorated parapet surmounts the walls on



HERALDIC PANEL.

each side. The "Chantry Chapel," a perfect gem of its kind within and without, projects into the court from the western cloister, and will not fail to attract the admiration of the visitor. The width of the cloisters within is 12 feet 8 inches; their length, from east to west, about 63 feet; and from north to south, nearly 76 feet. The court-yard measures 49 feet 6 inches from east to west, and 63 feet from north to south.

ENTRANCE TO THE LORDS' REFRESHMENT ROOMS.

These grand and elegant apartments are approached from the Prince's Chamber (which is situated behind the Throne end of the House of Lords), through a noble passage named the Bishops' Corridor. There is another approach to them from the corridor of the Libraries, which joins into that by the Bishops' Corridor. The Refreshment Rooms



PART OF WEST CLOISTER, NEW PALACE, WESTMINSTER.

vestibule between them. The screen-work here is open, and, like the elaborate working of the wainscotted walls, is remarkably rich and



ENTRANCE TO REFRESHMENT ROOM, HOUSE OF LORDS.

tasteful. The paintings and other decorations are all in character, and the *tout ensemble* wears the air of a suite of salons for the entertainment of a high nobility.

A PLEA FOR THE DRAMA.

BY AN OLD PLAYGOER.

SOME subjects are of that practical character that speculative criticism upon them becomes necessarily absurd. Ideal as the drama may seem in its elements, it is precisely a subject of the kind. One must frequent the theatre, haunt the side-scenes, and make acquaintance with the treasurer, thoroughly to understand it! A clever—a very clever paper in a literary journal has lately appeared, which, while lively reading enough, is incorrect in most of its premises and erroneous in its general conclusions. Though in its spirit it is frequently true, in its embodiment it is as a false visor that conceals a beautiful face and presents to the laughing spectator a grotesque mask, a representative of anything but the wearer.

We set off at once by boldly pronouncing that all talk of the decadence of the drama is a fallacy;—spite of many vicissitudes, it was never more vigorous than at this moment. Genius in this particular direction superabounds, as every manager well knows. Scores of excellent dramas are shelved from want of opportunity to perform them; and many of those produced are of extraordinary merit. But there was a time—not very long ago—when the public rightly preferred opera. Why was this? "Music has charms" undoubtedly;—but the success of opera is owing to more than to this mere truism. In opera, partial mediocrity is not permitted to mar the general effect. Look at one of the bills of the lyric drama. Why, nearly all the names are spaced out—every part is by a "star." Each must be well sung, artistically embodied,—and thus the whole has the completeness which delights and satisfies. Look, on the contrary, at the once usual cast of the drama. There have been periods (particularly of late years) in the Drury Lane, Covent Garden, and Haymarket managements when one performer, (Edmund Kean to wit) supported the whole play—the rest were mere sticks. Monopoly, in fact, had so decreased the number of well educated candidates, that a good working company was at one time almost of impossible attainment. The *mise-en-scène*, also, was entirely and notoriously neglected; and the production of a new play was so rare as to become a marvel. All this while, genius was suffering from neglect and pining in obscurity, lost to the world, and at length to itself. What hopes deferred!—what ruined prospects!—all due to a belief in that which had no existence; namely, that the theatres, legally engrossing a monopoly of art, were establishments for its nurture and illustration—a false public assumption, involving an incalculable amount of private and personal wrong and misery.

Mr. Macready came too late into the field as manager to complete the remedy of the evil; and his management, too, was unfortunately beset with the plague of cliquism. It was precisely at the moment that this great actor surrendered the government of Drury Lane, that the monopoly fell. A body of unrepresented authors had been active with the legislature, and, in consequence of their exertions, a bill at this precise epoch was in the House of Lords and in the course of its third reading, setting free the stage, and extending to every theatre the right of performing the five-act drama. Had not this act passed at this precise juncture, the drama of England would literally have been without a home, save at the Haymarket. The two patent theatres had actually closed their doors against it, and there was no house in which it could have been legally performed. As it was, Mrs. Warner and Mr. Phelps were, under the sanction of the new law, able to pass with their followers to the humble temple of Sadler's Wells, and to recommence the business of Melpomene and Thalia in a house little better than a barn. This, nevertheless, was a new era of things, and saved the drama. In the course of time, other similar attempts at the Olympic, Marylebone, and Surrey theatres were made; and only the other day, the Princess's, in Oxford Street, was opened under the admirable management of Mr. and Mrs. Charles Kean, and has since been frequently honoured with the Royal presence.

To these results, Free Trade in the drama has led; but these results are traduced by theatrical Protectionists. There is, say they, but one good action in a piece—all the rest nonentities. Surely, the writers who thus write are treating of what *was*, not of what *is*. Mr. Phelps, say they, is, for instance, wretchedly supported. No one, having practical knowledge of the stage, could, with a good conscience, make such an assertion. With Mr. George Bennett in *Enobarbus*, *Appemantus* and *Caliban*; with Mr. Marston in *Alcibiades*, *Jago*, and *Macduff*; with Mr. Hoskins in fantastic characters of all kinds; with Miss Glyn in *Cleopatra*, *Emilia*, *Isabella*, and *Hermione*, can any one deny that the great plays of "Timon," "Antony and Cleopatra," "The Tempest," "Othello," "Macbeth," "Measure for Measure," and "The Winter's Tale," have been most satisfactorily represented? Shall also the superb scenery, and the elaborate *mise-en-scène*, go for nothing? Both, at this despised theatre, have been equal to anything ever shown at the patent houses. The performers, too, whose names we have mentioned, are scholarly people; more than one having been educated at a university, and all well practised in their profession. It is, also, notorious that the success of this suburban theatre has not been owing to the excellence of Mr. Phelps's acting, but to that of his stage-direction.

But here a loud-tongued objector starts up: "Ay," he cries, "this is what excites our indignation. Scenery and *mise-en-scène* are substituted there and elsewhere for good acting." And this exclamation is followed up by certain twaddle about our equally enjoying a play, if well acted, in a barn. Supposing the fact to be so, is there any reason for preferring the barn, and for rejecting all reasonable appliances? The question is not to be settled in this absolute and positive manner. It

is really one of a relative character, and its associations must be considered. Doubtless the accessories of dramatic production should remain accessories, and pretend to nothing more; but it is still well to have them in proper quantity and quality, though not in excess. They should, let it be granted, never be more than suggestive; but they should be that; and likewise so neatly introduced as not to spoil the impression by misdirecting the attention. Certain dramas, also, justify more of them than others,—Shakspeare's historical plays, for instance. Thus, the getting up of "King John" at the Princess's, elaborate as it is, ought not to be arraigned for its lavish costliness; nor can it be justly said that it substitutes good acting, for the company is an admirable one, and the tragedy is adequately cast. Mr. Charles Kean, too, stands distinguished from all other actors of his day by the evident possession of what is peculiarly called "genius." We have other actors of great talent: Mr. Vandenhoff, Mr. Anderson, Mr. Phelps, Mr. J. W. Wallack; all meritorious, hard-working, and pains-taking, fit to lead each his separate *troupe*; but they show none of those sudden flashes and scintillations which illustrate every character undertaken by Mr. Charles Kean; none of that inspiration, which, while it electrifies, evades examination. This certainly distinguishes Mr. Charles Kean, as it did his father, from all other contemporary actors. The fact was for a long while doubted, but it has at length made itself felt, and the sooner it is generally allowed by critics the better. The public has given in its testimony; and it would be well for journalists to add theirs without equivocation or reserve, as we do ours.

On this question of the *mise-en-scène*, what we have said on the completeness achieved in the performance of opera has a manifest bearing. Attention to it has a tendency to beget a similar completeness in an acted drama. The musician, be it noted, has a certain advantage over the poet. His score settles everything for the singer—tone, expression, time, emphasis. All must be done as the composer has prescribed. Now, the poet must leave all the portrayal of his conceptions to his actors, and one varies from another in the widest extreme, in the utterance of the same words, sometimes to the extent of uttering their meaning and feeling. Blank verse somewhat modifies this histrionic liberty, but not much. Attention to the *mise-en-scène* has a tendency to correct such objectionable licence. The would-be vagrant performer is brought into harmony with others in the same scene, and acts by wise prescription, not erroneous volition. The inferior actor, in fact, must be drilled. It is notorious that at the beginning of the reformed management at the Islington Theatre, the completeness of the performance was obtained by the practice of the drill. The stage-manager had his work to do at rehearsals; but a season sufficed to bring this into proper train, and afterwards the system worked well of itself, and with the precision of machinery, nor was it without advantage to the superior actor. If he was good before, he was all the better for the discipline; and harmonious co-operation in the acting of a play thus arrived at the dignity of an art, and indeed as such has received public recognition.

And such have been the legitimate results of Free Trade in the Drama; not only the multiplication of theatres for the performance of the better kind of pieces of all classes, but the perfection of companies. Histrionic genius has been wonderfully stimulated by the increased competition and extended arena. Scarce seven years ago, and there was a difficulty in making up one good company; now we have several in actual operation; and such has been the augmentation in the number of good actors and actresses, that we have many excellent ones without metropolitan engagements. The tables have been turned, and there is a surplus of histrionic labour in the market. Miss Faucit, Mrs. Warner, Miss Vandenhoff, are, with others, free to enter into any new speculation. Mr. Anderson, Mr. C. Dibdin Pitt, and Mr. J. W. Wallack have been glad to star at the Saloons. Free trade in the drama has indeed confined the starring to these places; and there, no doubt, the system will, for a while, work beneficially. These histrionic planets will illuminate their theatrical darkness, and penetrate the obscurity of the East end with gleams of better things at the West. We look upon actors of a decent grade, when thus engaged, as missionaries propagating a true dramatic taste in benighted regions. That they do so, is clear from the circumstance of such engagements being enormously profitable to the performer. On the occasions of such appearances, the Saloons are crowded, and the actor realises an ordinary week's salary on each separate evening of his performance. And having so far sowed the good seed, he goes his way; and then is followed by another charged with a similar errand. These are facts, and should be well considered; and which, being considered, justify a hope of the perfectionating a brighter and more useful dramatic school than we have ever had before.

FELT CLOTH CARPETS.—The "Journal of Commerce" gives an account of a novel production which the Bay State Mills have produced; it is a felt cloth carpet, printed in block-work, and designed according to weight either as a floor-cloth or drugget. The threads of wool are not spun or woven, but drawn out and laid together, the whole mass being felted like a hat body. Within a few months, fabrics have been put together in this way, showing a different colour on either side, and designed for coats to be made up without lining. The Bay State Mills make this cloth with a white ground, about 40 inches wide, weighing from four to twenty-four ounces per yard, and print it in elegant carpet designs, showing the richest combination of brilliant colours, and furnish it at 75 to 90 cents per yard.—*Scientific American*.

MAY 8, 1852.

The People's Illustrated Journal.

SUGGESTIONS FOR A GRAND ART-EXHIBITION OF ALL NATIONS.

THE opening of the various Exhibition Rooms at this season of the year gives Art its accustomed potion of stimulating applause, patrons something to do with their money, and the critics something to talk about. One with another, the catalogues of these annual gatherings comprehend some six or eight thousand works, some in oil and some in water-colours, upon all sorts of subjects, and of all sorts of shapes and sizes. What becomes of them all is a puzzle to everybody: and yet something does become of them, as the cheerful little monosyllable "sold," ticketed upon so many of the frames, unmistakably indicates. A goodly number of them go off in a lot to the Art-Union Society, who every year distribute their collected guineas amongst hungry painters, chiefly of the smaller sort, who condescend to study the whims and fancies of a new order of cognoscenti; and whose works are generally distinguishable by their *ad captandum* style of colouring, and the circular or arched frames in which they are enshrined, and which "look so nice over the chimney-piece."

And yet, with all their faults, even these do good in their way; and the Art-Union patron, however to be lamented his appetite for exciting novelty, does good also; they all do something for Art-progress, if only in the occasion for ridicule which they afford to those who know a little better, or think they know a little better, than themselves. "In the multitude of councillors there is wisdom," saith the proverb. Mr. Hullah has proved that in the multitude of voices there is harmony; and we are firmly of opinion, that in the Pictorial Art a multiplicity of examples—good, bad, indifferent, just as they may come—all brought in juxtaposition, must form an essential and valuable aid in the cultivation of the public taste. That the people, even of the humblest ranks, have a taste—though at present an uneducated one—for works of Art, both as materials of decoration, and for their suggestive properties, is not to be doubted. Even children are caught and beguiled to study by their picture-books: and the walls of the rustic cottage in the remotest agricultural district have seldom been without their treasures of Art, consisting mostly of monstrous conceits,—murders, wonderful battles, shepherdesses, and fancy portraits of all sorts, each in its little black frame. More recently, however,—thanks to the influence of Art-Unions, and the labours of the "Penny Magazine," the "Illustrated London News," and various pictorial publications,—a larger stock to choose from has been supplied to these humble collectors; and by the innate force of truth which rules all our impressions, the black-framed daub has given place to a milder and better style of wall-decoration.

But still the advance, though undoubted, has only been partial; ending a vast way from the goal to be attained, and leaving an immense tract of territory on either side of the road wholly uninfluenced by the onward movement. The millions require their Picture Gallery, where they may see and study the achievements of living Art, and from them derive inspiration of what is beautiful in form, harmonious in colour, and true in effect;—inspiration which may survive to guide their hand in the factory and the workshop when they return to their daily toil.

Let not the rich man selfishly twirl his shilling between his finger and thumb, and say the Exhibition is open to all who choose to pay, and quite crowded enough, in all conscience, already; let not the manufacturer pretend indifference to the culture of the creative faculties available to his business, and content himself with copies of foreign designs, or concocted imitations of them by professed pattern-drawers. Granted that stale and hideous patterns are good enough for a tasteless public; a tasteless public is not, in these days, the market to which manufacturers should limit their regards. Let the public,—and, in common with the public, let the journeymen manufacturers be educated in the true spirit of Art, and a style of products will be the result which will be the admiration, instead of the ridicule, of the world, and supply a class of purchasers who are now attracted elsewhere. The establishment of a Grand National Exhibition, or Walhalla, to supersede the various smaller Galleries now existing at all ends of the town, and

which are all more or less exclusive and ruled by favouritism, would be a public work worthy to follow upon the Great Exhibition of 1851. The project, also, is one which cannot be taken up at a more favourable time than the present, when, by the consent of Government-men themselves (who are always the slowest in the march of intellectual improvement), the dingy nest of cupboards in Trafalgar Square is condemned as a national disgrace, and a new National Gallery pronounced inevitably necessary. All we ask is, that when this new work is done, it be done well, and worthily;—sufficiently central in position, and sufficiently spacious for the reception, not only of the pictures which are now the property of the nation, but also for the exhibition of the works of contemporary artists of all nations, who should be freely invited to bear their part in the splendid array. Thus, and thus alone, will a community of feeling be established between men of mind and genius throughout the world, which will lead to the improvement of all, and the revival of Art,—high Art, now everywhere notoriously on the decline. Raphael was not half Raphael's self till he had studied the works of Michel Angelo; and shall the artists of our day shut themselves up at home, dividing themselves into small clubs and cliques, and be content with reciprocating the influences of a restricted sphere, when the giants of the fifteenth century wrought in chivalrous rivalry in the face of the world;—and when the potentates of the mightiest kingdoms sought out, and contended for the honour of patronising, the highest genius wherever it was to be found?

With regard to the arrangements of such an Exposition of Art as we propose, we would have, in the first place,—what we have never yet had in this country,—a building sufficiently spacious to show all the pictures, however numerous, without crowding and piling them one over the other, as in a picture-shop or auction-room; with properly proportioned rooms to suit pictures of various sizes and styles; and, finally, with such regard to lighting as should enable every picture to be properly viewed. The building should be architecturally beautiful in itself,—not the hideous square and oblong rooms, bare-walled and mean in aspect, into which Art is now thrust; but handsome galleries, capacious enough for thousands to move about in them without crushing; and with secluded nooks here and there, filled with pictures of the cabinet size and various articles of *virtu*, where the visitor might repose himself between courses, and yet imbibe those pleasurable and improving impressions which the amenities of Art afford.

To give completeness to such an institution, and to carry out to the end the purpose with which it should be founded, we would (whilst admitting freely all candidates) have an inner hall, or Historic Gallery, into which works of the highest merit in the highest walks of Art, as adjudged by a competent committee, should alone be admitted. We would even have purchases for the national collection made annually out of this class,—besides, perhaps, honorary prizes sparingly allotted amongst others.

Finally, as the walls of our Great Art-Exhibition of all Nations should be available to all candidates, so should its doors be open freely and without charge to all visitors, except on certain days in the week, when a charge might be made, the produce of which would go some way towards the financial requirements arising out of the suggestion in the last paragraph. To the world generally,—to the labour-world in particular, whose shillings are hardly earned, and too often forestalled by domestic requirements,—the doors should be flung invitingly open. It is all very easy for those who have shillings in plenty to think lightly of the shilling fee for admission to a picture gallery. This charge, even if restricted to a single place of exhibition, would operate as a very serious tax,—a prohibitive tax as regards the millions. But when, as at present, the shilling fee has to be repeated at half-a-dozen different places before the one individual can have taken a survey of the Art-productions of the year (to say nothing of the extra shillings for catalogues), the number of the Art-public may be estimated in hundreds. When this is considered, can we wonder at the restricted field, and the small progress of Art, which all its votaries now complain of and deplore?

Submitting that the idea which we have now ventured to throw out is by no means chimerical or unimportant, and purposing on future occasions to enter at length into all the various points of detail it involves, we commend it to the consideration of the lovers of their kind, from whom we shall be happy to receive suggestions upon the subject.

VANDYCK (SIR ANTHONY).—HIS LIFE AND WORKS.

THIS illustrious painter was born at Antwerp, March 22, 1598—9. His father was a merchant, and his mother, Cornelia Kersboom, distinguished herself by her genius in painting flowers. Anthony was first placed with Henry Van Balen, but afterwards with Rubens, under whom he made such progress as to be able to assist in the works from which he learned. Vandyck was yet young, when he was capable of executing pictures which astonished, as much from the facility with which they were painted, as the general knowledge which reigned throughout the whole. Rubens at this time gave him two pieces of advice; the first was, to devote himself to portraits, in which he foresaw he would excel; and the second to make the tour of Italy, where he would have an opportunity of extending his studies. Vandyck, accordingly, after making Rubens presents of two or three historical paintings, and painting his wife's portrait, esteemed one of his best, set out for Italy, and stopping at Genoa, painted there many excellent portraits. From thence he went to Venice, where he so deeply imbibed the tints of Titian, that he is allowed to approach nearer to the carnations of that master than even Rubens. He then proceeded to Rome, and lived there splendidly, but avoided the low conversation of his countrymen; on which account he was distinguished by the appellation of the *Pittore Cavalleresco*. He afterwards returned to Antwerp and practised history and portraits. But the advantages he reaped in his own country were not proportioned to his merits; and as he loved to make a figure, he resolved to augment his fortune by a visit to England, where he had heard of the favour King Charles I. showed to the arts. By some fortuitous accident he failed of being introduced to the King, and he went back to Antwerp, greatly chagrined by his disappointment. The King, however, soon learning what a treasure had been within his reach, ordered Sir Kenelm Digby, who had sat to Vandyck, to invite him over. He immediately complied, and was lodged among the King's artists at Blackfriars. Thither his Majesty went often by water, and viewed his performances with singular delight, frequently sitting to him himself, and bespeaking pictures of the queen, his children, and courtiers. Charles was so well pleased with his painter, that he conferred the honour of knighthood on him at St. James's, July 5, 1632, and the following year he granted him a pension of two hundred pounds a year, with the title of Painter to his Majesty.

Arrived at this period of his career, we quote a graphic passage of his style as a man and an artist from that elegant writer Mrs. Jameson:—

"Encouraged perhaps by the munificent and honourable reception which Rubens had met with, his friend and pupil Vandyck came over in 1631. He was then about three-and-thirty; had spent some years in Italy in diligent study distinguished there by the elegance of his deportment and his splendid style of living, which procured him his Italian designation, *il Pittore Cavalleresco*. Vanity was a strong ingredient in the character of Vandyck. Not being noticed by the king immediately on his arrival, he returned to his own country in a fit of chagrin. 'But his Majesty, soon learning what a treasure had been within his reach, ordered Sir Kenelm Digby, who had sat to Vandyck, to invite him over. He came, and was lodged among the king's artists at Blackfriars.' Charles was delighted with the painter and with his works; sat to him frequently; bestowed on him the honour of knighthood (in 1632), and soon after a pension of 200*l.* a-year for life. Daniel Mytens, who till then had been the principal painter at court, was seized with jealousy, and signified his intention of quitting the king's service and returning home. Charles, hearing of his discontent, sent for him, and told him graciously that he could find sufficient employment both for him and Vandyck. Mytens, vanquished by this kindness, and by the amiable manners and attentions of his rival, consented to remain in England; but returned finally to the Hague within two or three years.

"The superiority of Vandyck bore down all competition. Previous to his arrival in England he had painted some fine historical pictures; but in this department he wanted grandeur, invention, and dramatic power, and cannot be esteemed first-rate; whereas, in portraits, to

which he almost entirely devoted himself during the last ten years of his life, that is, during his stay in England, he is allowed to have one superior—Titian. Vandyck gives us the finest possible representation of nature; but when you look at one of Titian's women, you do not think of a representation, but rather feel one of a presence. In the imitation of that which he saw before Vandyck is unequalled. In rendering the texture of flesh, for instance, there is a wonderful mixture of softness and sharpness in the use of his pencil; and in the delicate drawing of the features and the expression in precision and correctness of form, he has never been excelled in conveying the impression of life—life looking out at the eye, throbbing in the warm blood beneath the skin—he must yield to Velasquez. Then, for character, Titian gives us subtlety, passion; Vandyck excels in the expression of high breeding and cultivated intellect. His women do not charm by their love but by their quiet, unaffected, amiable grace. His men are 'the of fashion and the mould of form.' Cavaliers, courtiers, counts, prelates—these he painted to perfection, and you never forget the moment their rank and their conventional claims to respect. It

be remembered that Vandyck like many other painters, two different manners. His best pictures were painted when he was yet between twenty and thirty—the influence of the brilliant style of Rubens had been modified by his Italian studies, by his taste, and his correct eye. Effulgent was at this time more more bright, his execution vigorous, than at a later period. During the last two or three years of his life he became rather cold and occasionally flat and cold appears, on the whole, to have been far inferior to Rubens in his personal qualities,—in strong presence, in profound and penetrating intellect, in discretion and brevity. He was amiable, polished, generous; but vain, petulant and extravagantly fond of pleasure. He kept a luxurious table, listened to music and musicians, and his manner of living vied with the most splendid courtiers. He was beguiled by his friend Sir Kenelm Digby into the pursuit of pleasures which further hurt his fortune; was, however, indefatigable in his profession, as appears by the prodigious number of his works. Happily, with the hope of steady character, and withdrawing from his pursuit of pleasure, Charles, about seven years after his arrival in England, bestowed Maria Ruys on him as a wife. Vandyck in 1641, just before the commencement of the civil war, leaving an infant daughter and heiress. It



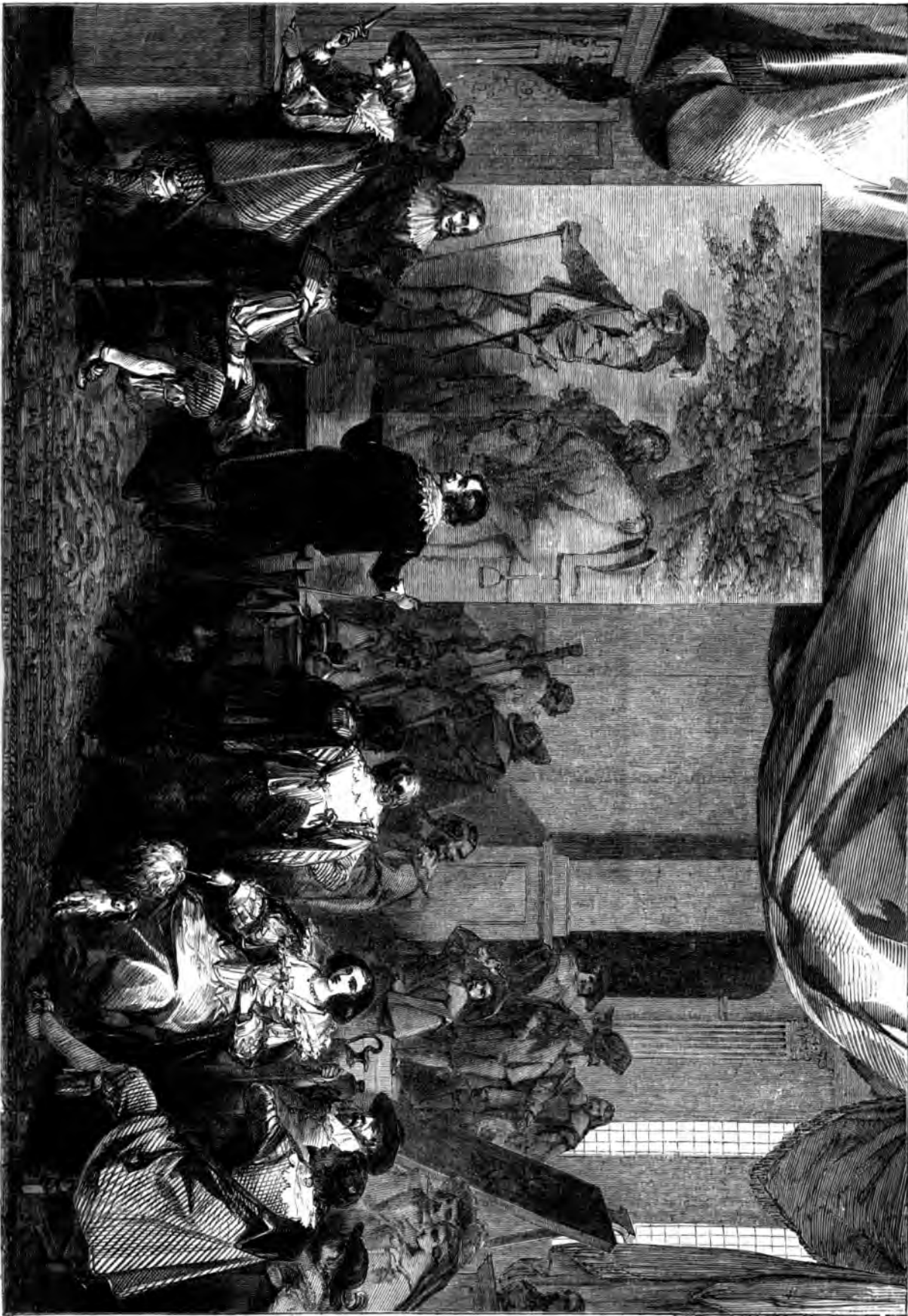
VANDYCK.

proposed to the king to paint the walls of the banquetting-room at Whitehall, with the history of the Order of the Garter, and was to receive for this grand work 80,000*l.* (not 80,000*l.*, as has been erroneously stated). His death or the impending troubles prevented the execution of this magnificent project."

Vandyck, Mr. Cunningham states, was buried in Old St. Paul's vault near the tomb of John of Gaunt, "but the outbreak of wars under Charles I. prevented the erection of any monument to his memory."

The view of the Studio of Vandyck, engraved on the opposite page, is one of a series of fine pictures, by M. Madon, entitled, "Scenes from the Lives of the Painters of the Flemish and Dutch Schools, in which the artist strives to preserve the peculiar character of each painter respectively treated of. The scene here represented is the quieting Hall, Whitehall, where Vandyck is engaged upon the portrait of his Royal patron, who is surrounded by his Court.

In this picture the King is represented in a hunting-dress, accompanied by an attendant holding his horse. It once decorated one of the King's apartments, but, after his death, was sold at public auction with other pictures of the Royal property by order of Cromwell. It then found its way to France, and came into the Marquis De La collection; at the sale of which, it was purchased for 24,000*l.* (1860*l.*) by order of Madame Du Barry, who made a present of it to Louis XV. It remained in the Palace of Versailles till 1794, when it was placed in the Louvre. Thus has it twice passed from the possession of Royal owners upon the tragical death of each.



VANDYCK'S STUDIO AT WHITEHALL.

THE WATER QUESTION.

THE present position of what is known as "the water question" is so very far from satisfactory that we are almost tempted to wish it had never been meddled with. It is certainly surprising and vexatious, but no less true, that it is almost impossible for Parliament to move successfully against any great domestic abuse for the host of little interests which nestle and fatten under its shade, and which absolutely smother inquiry and bid defiance to action. For the last ten years the subject of the water supply of the metropolis has frequently been before the public, and been made the subject of parliamentary inquiry and legislation; and yet up to the present moment, although much has been said on the question, and an infinite amount of pledges given, nothing in reality of a beneficial character has been accomplished. Various reports have issued containing much valuable information, much convincing argument, and many useful suggestions. The last of these, that issued from the Board of Health in the spring of last year, created an immense sensation, and struck terror into the hearts of the directors of the nine water companies who monopolise the supply of water to the metropolis. In that report, it was shown by evidence, which has never yet been refuted, that the water doled out to the metropolis was impure in quality, unequally distributed, and enormously expensive. The report not only pointed out the defects of the present system, but also defined a remedy. It proposed that all the present sources of supply should be abandoned, and that water of perfect purity and softness should be brought to the metropolis from the Surrey sands. It proposed that the works of the present companies should be purchased; that both the water supply and the sewerage should be under one and the same management; and the report further averred that the supply should be constant, at a high pressure, and a great reduction of charges. The then Government were, however, unprepared to undertake so radical a change. The water companies commanded, it was said, 86 votes in the House of Commons, and, in the state of parties, the Government could not afford to offend so large a section of its usual supporters. A sort of middle course was therefore adopted, which, as is generally the case, afforded satisfaction neither to the public nor to the water companies.

A bill was last year introduced by Sir George Grey, which proposed to consolidate all the water companies into one vast monopoly, to be placed nominally under the control of the Secretary of State, and thereby responsible to Parliament. This bill was referred to a select committee, of which Sir James Graham was chairman. The committee sat for nearly eight weeks, and, after taking an immense amount of evidence, separated at the close of the session without making any report. The cost of this inquiry is estimated at 30,000*l*. Early this session Lord Seymour prepared and introduced a new measure of an entirely different character. It proposed to leave the present companies as they were before, with the exception that they should not be allowed to take their water from sources within the tidal influence, and that these sources should from time to time be inspected by an officer to be appointed for that purpose, who should decide upon their purity or impurity; a further provision was introduced to regulate the charges. This bill has been adopted by the present Government, and is now before a select committee, on which, strange to say, Lord Seymour, the author and framer of the bill, sits a member as both judge and advocate of his own measure, an anomaly that is rarely witnessed, and which has given rise to much comment.

Of this precious measure it is not too much to say that so far from affording any remedy, or holding out any hope of a remedy for a proved abuse, for the benefit of posterity, it will tend to perpetuate monopolies of existing companies, and condemn for ever two millions and a half of her Majesty's subjects to the use of a water most impure in quality, most wasteful in use, and most expensive in price. The wastefulness in use of water of a hard quality may be judged of by the single instance of soap, it being given in evidence by Dr. Clark that the use of London water occasions an excess of consumption in this one article of 200 per cent.; in other words, that the 100 gallons of such water, unpurified, would require 30 pounds of the strongest curd white soap to make a lather, whilst, when purified down to four or five degrees of hardness, it would require only nine and a half pounds. When it is recollected that 12,000 tons of soap are used in London in the course of the year, at an average of 50*l*. a ton, making a total of 600,000*l*. upon this one article, the saving to be effected in this branch of domestic expenditure by the use of water of a pure quality is not to be lightly thought of.

The pretence of removing the point of supply in Thames water beyond the tidal influence is a mere delusion. It is useless to disguise the fact, that our rivers, almost without exception, are polluted with the drainage of towns and villages from their very source; and under the most favourable circumstances must always bear a considerable amount of organic impurity in suspension. To free the water from this, artificial filtration is now being resorted to by the water companies, who are effecting imperfectly, and by means of very expensive machinery, what nature is daily performing much more simply and efficaciously for herself. We give a view of one of these works, belonging to the Lambeth Water Company at Thames Ditton; constructed at an expense of 150,000*l*. Bills are now before parliament for the erection of similar filtering works on the parts of nearly all the other existing companies, at an estimated outlay of upwards of a million and a half of money; all eventually to be paid by

the public. Is there not time to pause before going further in a bad course?

Before we quit the subject for the present, we have to remark especially upon one of the sundry new speculative schemes which have sprung up, or are likely to spring up, under countenance of Lord Seymour's declaration in favour of "private enterprise" in these matters. We allude to the Watford Water Company project, revived after being shelved sixteen years, and now actually before the Water Committee in the House of Commons. The object of this scheme is simply, by means of Artesian borings, to pump up all the deep spring-water in the Hertfordshire district, and to convey it by means of pipes for consumption in London, more particularly the northern suburbs. The injustice involved to the Hertfordshire people is very great and undeniable; many of them having deep wells of their own, sunk for domestic use, or the purposes of manufacture, which must inevitably be drained, whilst the rivers on the surface must, spite of all precautions, be affected more or less. It has been a very common error, which we are now partially disabused of, to imagine that Artesian springs are inexhaustible in supply. The very reverse is the case, as has been most signally shown in the case of several deep wells existing in this very metropolis. Mr. Braithwaite's evidence in the second Appendix of the Report on Water Supply is very precise upon this point. He is asked:—

"How far do you think the deductions to be drawn from the facts which have occurred under your own observation conform to the prevalent views of geologists or of the projectors of Artesian wells?"—"I am of opinion that the result of my observations warrants me in conforming to the views of Dr. Buckland and other geologists, who consider the water in the deep springs under London or of the London basin as exhaustible, and that, comparatively, in a very rapid degree. I therefore differ with the projectors of the Artesian wells, who are, in my opinion, led into error by the partial success of wells sunk in a deeper part of the assumed basin. I allude more particularly to the three wells sunk, one opposite the National Gallery, and two others in Orange Street. If I may be permitted to digress, I am of opinion the Commissioners should obtain correct information touching these wells. But I wish it to be distinctly understood that I admit that there is still a large quantity of water in certain localities both in the land and sand springs; but I entertain serious doubts if any large quantity of water is to be obtained from the chalk under the metropolis, for in several of the chalk-spring wells, although but recently sunk, the water is sensibly declining."

"What has been the success of the Hampstead Water-works?"—"The first well was sunk by my brother on the hill by the side of one of the upper ponds to the sand-spring 386 feet deep. A twelve-horse engine was erected, and for some considerable time there was a good supply, but the pumps were only worked in times of deficiency in the surface waters. Since then, in consequence of the falling off of the water, Mr. Mylne was employed to sink another well to and into the chalk. I am informed that the well is dug 321 feet to the chalk, 255 feet in the chalk, with a very short supply, and that he is now boring for more water."

"What are your recorded observations of the effect of the pumping and the deep working at one part of the metropolis upon another?"—"Several. The most remarkable instance is now in operation. The pumping at the wells near Trafalgar Square is drawing the water rapidly from Messrs. Combe & Co.'s well, the Union and Reform Clubs' wells, and others. That at Combe & Co.'s, before the sinking of the Trafalgar Square wells, produced the same effect upon Covent Garden well, for until the pumps were lowered in that well, which I had advised to be done in the first instance, the engineer was compelled to pump two or three hours before Combe's pumps began work. There are several other recorded instances. The effect of Barclay's pumping on Calvert's well: in fact, there has been one universal depression in all the wells to the sand-spring, varying only in degree according to the various depths. I may mention two instances not exactly in the metropolis. The one occurred at the brewery of Messrs. Tritton, at Wandsworth, where the well, drawing the supply from a neighbouring well (Mr. Rutter's), was the subject of a lawsuit. The other occurred at the Kingston Union well, sunk to the sand-spring 425 feet, where the water rose to within 7 feet of the surface, which, when lowered by pumping to 25 feet, affected Mr. Palmer's well, which was about 200 yards distant, also sunk to the sand-spring. Mr. Palmer's well is situated something lower than that at the union, and was really an Artesian well, for it overflowed; but when the water at the Union well was lowered, as above stated, it (Palmer's well) ceased to do so. This discovery led to the correction of an important error; it was always stated that Mr. Palmer's well-water was from the chalk, but it is only from the sand."

It will be seen that Messrs. Combe and Delafield are specially referred to by this witness, and a lithographed diagram accompanies the report "showing the fall of water in the sand-spring underlying the blue and plastic clays under London, taken at Messrs. Combe and Delafield's brewery, Castle Street, Long Acre, from August 1887, to December 1849 inclusive." The result shows a gradual declension from a level of 113 feet from the surface in 1827, to 163 feet 6 inches below the surface in 1849, being a loss of 50 feet 6 inches in twelve years. Moreover, if we go back to 1827, the level of the wells upon this establishment was 75 feet from the surface; making the total loss, in twenty-two years, 88 feet 6 inches. We under-

hat, since the last date in question, it has und necessary to dig a third well upon these

ing at this example, we certainly think that downers, mill-owners, and residents in the surhood of the proposed Walford works have ause for alarm, and a right to seek for pro- for their property. It should be added that dents of north London would not gain much spoliation of their Hertfordshire neighbours: ter which it is proposed to take being of rees of hardness harder than the general of the London supply, and double the hard- that obtained by the new process at Rugby.

FILTERING BASINS OF THE LAMBETH WATER COM- PANY'S NEW WORKS AT DITTON.

new works were opened on the 30th of The object of the Lambeth Water Company met the objections that have been raised the obvious impurity of the source (near ford Bridge) whence they have heretofore their supply of water. In the year 1818 ained an Act to enable them to construct ks; and as soon as they could procure the y funds, they commenced the prosecution of is in question, by means of which they pro- andoning their old source of supply, and g the water from the Thames at Ditton, to ervoirs at Brixton and Streatham, whence it distributed to new districts, and also sup- their present tenants.

orks adjoin the Surrey bank of the Thames, with which are four filtering basins, covering acres of ground, and into which the water is l through two sluices. These sluices have iron grating, to prevent the passage of weeds, a frame of fine gauze-wire, which effectually it from the filtering reservoirs the more impurities of the parent source of supply. ter, having passed through these "sieves," way into the filters by the following process: otton of the filters consists of several brick s, through which the water, when purified, to a well, whence it is pumped into the pipe. Over these channels are placed, trans- abbs of slate, some half-inch apart, to admit pas-sage of the water through the filtering s. These are, first, a stratum of coarse next, fine gravel; then shells, and on the ayer of fine sand. The supply pipe is 30 u diameter, and extends from the works at o the reservoirs at Brixton and Streatham, way of Merton and Tooting, a considerable of it running along the north side of the 'estern Railway. The site of the new works n is about 23 miles by the course of the river ondon Bridge, and upwards of 3 miles beyond e of the tide; but the length of the supply- m the works to Brixton is 10½ miles.

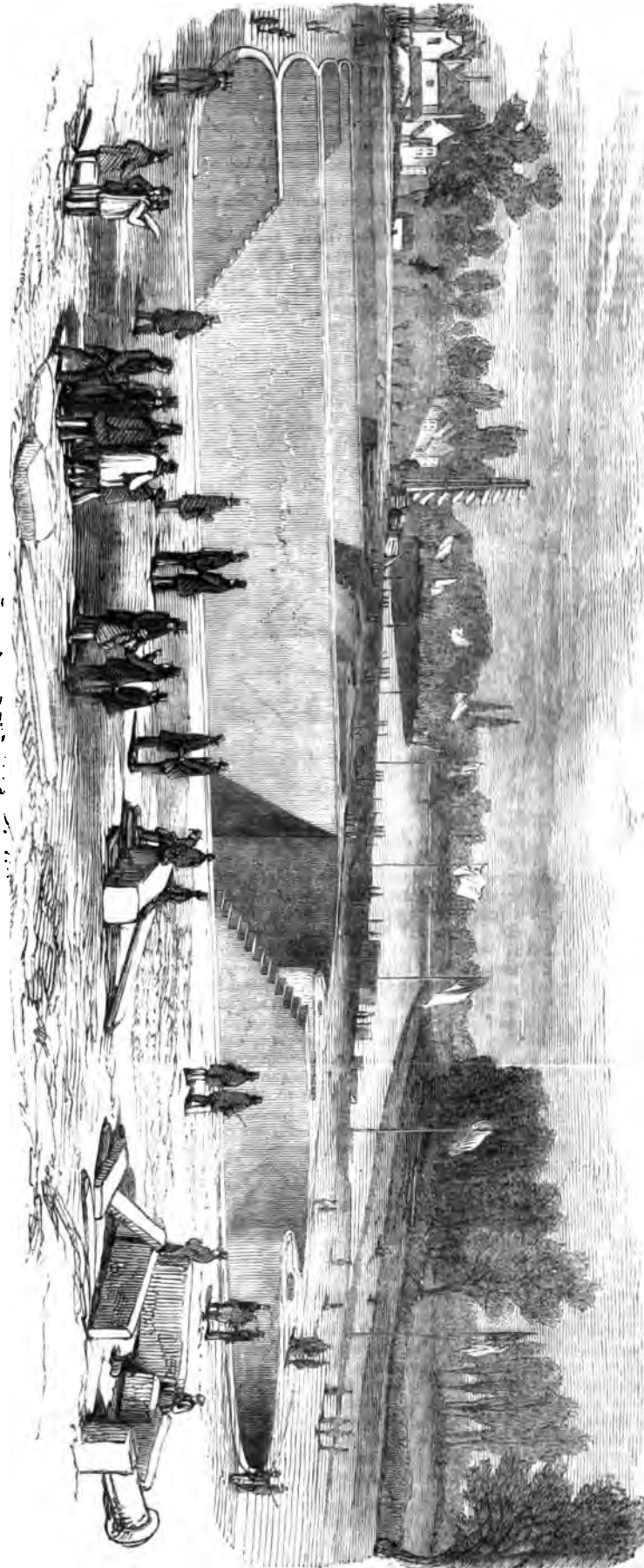
eam pumping-engines are of 600 horse-power, equal to the supply of about 10,000,000 of water daily into the Company's reservoirs on. The engines working at full power will e water from Ditton to Brixton in about eight

money powers of the Company's Act enable raise 200,000*l.* for the purpose of carrying e works, which it is stated have already cost 50,000*l.*

ING OF THE NEW HOUSE OF COMMONS. - the Easter vacation a great many experiments n tried as to the mode of lighting the new f Commons. The chandeliers suspended from f, which were found most inconvenient, and ave a very bad light, have been taken down, ts placed out-side of the inner roof, under the roof, which are expected to answer much han those which had been in use since the cement of the session.

ASTER MONUMENT.—The tomb and effigy of Earl of Powis, executed in alabaster by Mr. son, after a design by Mr. Scott, has been ho last few days safely fixed in its niche, in th wall of the chancel of St. Mary's Church, ol. The arch is carved by Mr. Phillip, and ses by Mr. Waller. The figure is in the robes arter, and the portrait was obtained from a by Grant, at Walcot-park.

THE FILTERING BASINS OF THE LAMBETH WATER COMPANY'S NEW WORKS AT DITTON.

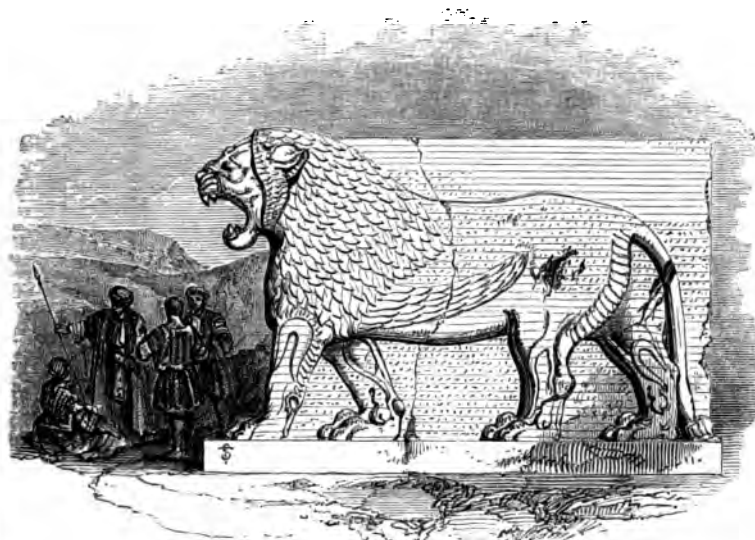


NINEVEH.*

FOR two thousand years the burial-place of Nineveh, the City of Palaces, was unknown; nothing but its name, its traditions, and its Scriptural history survived. But modern discovery defies ancient mystery. A contest of light with darkness has at length commenced; and the former will penetrate with day the obscurest places and the oldest times. The discoverers of Nineveh are now well-known names—Rich, Botta, and Layard—and require no introduction, to whom let us add M. Bonomi, who comes forward in his last most able production to demonstrate that the Nineveh which has furnished so many and such magnificent remains to the Louvre and the Museum is also the Nineveh of the Bible.

The tale of the discovery is now thrice-told. We must therefore dispatch it in a few words.

Claudius James Rich was the East India Company's resident at Baghdad; but, despairing of an audience among his countrymen, published his first essay on Babylon in German, appealing to the scholars of Vienna. His second was printed in London in 1818, and suggested the probable site of the Palace of Nineveh. Vestiges of its remains



COLOSSAL LION FROM KOUYUNJIK.

had, indeed, been continually used up for modern buildings—a considerable part of the village of Mösul being constructed of such materials. In this way, how much has been lost! Alas! for the intellectual apathy of the Turks. In a third paper, Rich devoted himself to the subject of Nineveh; but all as yet was inchoate and conjectural.

Botta, the Frenchman, was able to do more, for his Government provided him with the means, and has since published the narrative of his researches in five folio volumes. He was sent out as consular agent to Mösul in 1842, and his attention was from the first directed to the archaeological interest of the locality. A mound, called Kouyunjik, was chosen by him as the spot for his operations, which were commenced in December, 1842. But it was at Khorsabad that his pains were destined to be rewarded. On the 24th of May, 1843, Duchâtel, Minister of the Interior, placed 3000 francs at Botta's disposal, to carry on the researches which he had there successfully begun. How he was opposed by the prejudices of the Mussulmans in general, and those of Mohammed Pasha in particular, are facts that have been frequently recorded. These impediments Botta ultimately surmounted; and a young artist, M. E. Flandin by name, was sent by the French Government to copy the sculptures he had discovered, with a fresh sum of money for the triumphant continuance and completion of the works. It was not, however, until the month of June, 1845, that Botta was able to remove all the sculptures to the side of the Tigris, in order to send them to Baghdad that they might be transported to France, and adorn as they now do the Louvre.

Austen Henry Layard was an Englishman, and had to show in his researches the independence and energy of his race. Botta's investigations were encouraged by authority; but the English Government shows little sympathy for science, and leaves to individuals what ought to be the duty of the nation. Layard sought help in vain, until Sir Stratford Canning nobly volunteered to bear for a while, out of his private purse, the cost of the excavations. These he commenced at Nimroud. On the 28th of November, 1845, the first of the long wished-for bas-reliefs was suddenly disclosed. Fresh sculptures and

* "Nineveh and its Palaces, the Discoveries of Botta and Layard, applied to the Elucidation of Holy Writ." By Joseph Bonomi, F.R.S.L. Office of the Illustrated London Library.

"A Popular Account of Discoveries at Nineveh." By Austen Henry Layard, D.C.L. Arranged by the Author from his larger Work. With numerous woodcuts. New Edition. MURRAY.

relievi were from time to time discovered, and ultimately a rich collection was realised. "Kings, priests, griffins, eunuchs, and the symbolic tree, were among the figures, which excited feelings of amazement in the Arabs, and of rapturous delight in their employer."

Two of the best preserved of the sculptures were a Lion and a Bull. Great were the difficulties of placing these enormous figures on rafts and dragging them to the river; great also the perils; but the labour was accomplished, and on the 20th of April, 1847, the embarkation of the treasures was attempted. On the 24th of June, Layard was able to bid farewell to the Arabs, and depart on his journey to Constantinople.

Layard had long felt an irresistible desire to penetrate to the regions beyond the Euphrates; a feeling common to most travellers after a journey through the usually-frequented parts of the East. He wished to explore those lands which are separated on the map from the confines of Syria by a vast blank, stretching from Aleppo to the banks of the Tigris. A deep mystery, he was conscious, hangs over Assyria, Babylonia, and Chaldea. With these names, he says, "are linked great nations and great cities dimly shadowed forth in history; mighty ruins, in the midst of deserts, defying, by their very desolation and lack of definite form, the description of the traveller; the remnants of mighty races still roving over the land; the fulfilling and fulfillment of prophecies; the plains to which the Jew and the Gentile alike look as the cradle of their race. After a journey in Syria the thoughts naturally turn eastward; and, without treading on the remains of Nineveh and Babylon, our pilgrimage is incomplete."

This, mentally, we are enabled to do by the volumes before us;—one containing the facts, and that of Bonomi, also, their philosophy. The Sacred Tree—the Tree of Life, venerated all over the Orient—takes back the mind to Paradise, to the genesis of things, and goes far to explain the symbolic narrative. An eunuch, on the slab discovered by Layard, was represented in the act of adoration towards this holy type, which was preserved in the religious systems of the Persians to the final overthrow of their empire by the Arabian conquerors. The flowers of the Tree are formed by seven petals, springing from two tendrils, or a double scroll; thus in all its details resembling that tasteful ornament of Ionic architecture known as the honeysuckle. Solomon's "net-work of pomegranates" is allied to this symbol. On other slabs were discovered the figure of Nisroch presenting the fir-cone and basket to the symbolic tree; and, on some, the divinities themselves are represented in the attitude of worship. Of the latter, we present an illustration.

The fir-cone and basket are repeated accessories;—they are held by divinities presented at entrances, and bear a remarkable analogy to the Egyptian symbol of life. Four winged figures, which, in Mr. Bonomi's opinion, typify the god Chronus, the Ilus of the Phœnicians, the Allah of the Arabians, all derived from the Hebrew word אל (El, God), were represented on each side of the doorways at Khorsabad, turning faces to the entrances, and presenting, as it were, the pine-cone to



DIVINITIES KNEELING BEFORE SYMBOLIC TREE.

those who enter or come out, affording an example of a remarkable similarity with Egyptian temples, as to the appropriate significative sculpture for passages from one chamber to another. Here, in Assyria, he who was privileged to enter by this door was met by the divinity presenting him with the fir-cone; and there, in Egypt, the king is represented receiving from the divinity, in the same way, the instrument which is understood to signify life. This instrument may be seen in a cast on the staircase of the British Museum, portraying Pharaoh, Rameses IV., entering the tomb, at the threshold of which he is met by the divinity Horus:—Chronus, or Ilus.

In connexion with these elder mysteries, which require to be treated with peculiar reverence, it would appear that the Hebrew and Egyptian creeds were frequently in important particulars identified. Thus, in the account by Herodotus of the destruction of Sennacherib's army, the title under which the Egyptian

EGYPTIAN
SYMBOL
OF LIFE.

interposed his miraculous power was worshipped, is the same as ascribed to the Supreme Deity of the Jews.



TAN KING
SES IV.



DIVINITY ILU'S.

however, these oldest sublimities in their divinest sanctity, of the art displayed in these Assyrian sculptures demonstrates that the earliest society of which we have records originated in a highly civilised, not a merely savage state. The latter is not the primitive, but the fallen state of humanity, the point to which humanity may be degraded, not where it began. At the remote periods when those Assyrian palaces stood, which we but yesterday discovered, the art of sculpture attained to wonderful excellence. It had its conventions, determining laws; its settled rules; artistic limits these, moderns have in vain endeavoured to remove, and by which it is found to be incompatible with sculpture. An after-age could not see the human form the artist's chief aim, as with Phidias, but beauty, in all its endless varieties, was portrayed in the statues and gods, wherein a peculiarity of excellence was assigned to each eventually became as much the attribute of the particular as any emblematic attribute peculiarly belonging to it, as the caduceus to Jupiter, the caduceus to Mercury, or the breast-plate to Mars.

In examining these early sculptures, M. Bonomi has threaded the labyrinth of the British Museum, Bible in hand, and corroborated the actual presence of the symbols. According to our author, the dominion of Nimrod extended towards the tribes of the East, a distance of about 130 miles. Resting on the Euphrates, his kingdom was bounded from Erech on the south to Accad in the north, and was bounded on the front by the Tigris. The oriental tradition, which makes him the first man who wore a crown, points to the fact that his dominion introduced into the world a new system of relations. Patriarchal society had yielded to a fortuitous sovereignty of territory and power. Society had outgrown family relationships and formed a state. Out of the land of Shinar, we are told, "went forth the first king, and he built Nineveh," driven probably therefrom by the flood of Nimrod. From this Hebrew Asshur, Assyria is the Greek name. How long Asshur lived, or how far he established his dominion, is not to be learned from the sacred narrative; nor for the fifteen hundred years is there any mention of Nineveh or its surroundings, notwithstanding the fact that the foreign relations of the Jews from that time, the first returning mention of Assyria or Nineveh in the Bible, is in the book of Jonah, wherein it is twice described as a great city, and again as an "exceeding great city of three days' journey," and as flourishing under regal government. At that time, it contained about 600,000 inhabitants.

In Scripture, King of Assyria was Pul or Phul, who appeared in the annals west of the Euphrates, in the days of Menahem, King of Israel (772 B.C.); the next were Tiglath-Pileser, whose fatal aid was given to Ahaz; Shalmaneser, who carried away the Ten Tribes; Sennacherib, whose impious boastings were confounded by the angel; Esarhaddon; and Nebuchodonosor. While reading the annals of the destruction of Nineveh, preserved by the secular historians, the predictions of the Hebrew prophets inevitably come to mind, and the despairing monarch perished in the conflagration of his royal residence. *Vide* Nahum, i. 8, ii. 6, 8, iii. 13, 15. The empire of Assyria fell, being merged in that of Babylonia, and the empire of the Tigris swept away twenty furlongs of the land, and the despairing monarch perished in the conflagration of his royal residence. *Vide* Nahum, i. 8, ii. 6, 8, iii. 13, 15. The empire of Assyria fell, being merged in that of Babylonia, and the empire of the Tigris swept away twenty furlongs of the land, and the despairing monarch perished in the conflagration of his royal residence. *Vide* Nahum, i. 8, ii. 6, 8, iii. 13, 15. The empire of Assyria fell, being merged in that of Babylonia, and the empire of the Tigris swept away twenty furlongs of the land, and the despairing monarch perished in the conflagration of his royal residence. *Vide* Nahum, i. 8, ii. 6, 8, iii. 13, 15.

The figure of Nimrod was found at the palace of Khorsabad, of great dimensions, between a group on either side of a great portal, flanked by two bulls, three on each hand. The Titan before us stood out

in bold and in some parts actually in high relief, and was at first supposed the Assyrian Hercules. He is represented strangling a young



NIMROD.

in his hand the forepaw of the animal, which seems convulsed in the agony of his grasp. The instrument in his right hand is apparently a boomerang, such as used by the Australians—a weapon almost universal under different names; viz. *hunga-munga* in South Africa, *trombosh* in central Africa, and *sellem* among the Bishareen. In the Egyptian Hall of the British Museum, there is an example of the instrument, exhibited in the picture of a huntsman who is about to throw it at some birds which are taking flight over a papyrus grove. The hair of this colossal figure is elaborately curled; it also wears a tunic, but in addition a long outer garment or mantle, descending from the shoulders to the heels, and fringed all round its embroidered border. Perhaps, the front of this robe was cut out to allow of the free action of the legs, for the advanced leg is exposed while that on which the figure stands is covered to the ankle. The figure moreover wears sandals which cover the heels and tie over the instep, being at the same time kept close to the sole of the foot by a strap encircling the great toe.

In examining the subject by the aid of the classics, we travel, as Bonomi well observes, by starlight. Ninus was probably contemporary with Abraham, 200 years after Nimrod, and 1100 before the fall of Sardanapalus. Babylonia and Assyria were originally two distinct kingdoms—the empire of the latter began with Ninus, not with its founder. Semiramis it was who removed her court to Babylon, which she enlarged, embellished with magnificent buildings, and surrounded with walls; after which she settled all the neighbouring kingdoms

under her authority. Also, she was the only monarch who penetrated to India before the time of Alexander; but she had to retire with scarcely a third of her army. Ninyas, her son, cultivated the arts of peace, and left to his successors a consolidated empire.

From the Egyptian monuments, it seems probable that siege was laid to Nineveh and Babylon by the Egyptians between 1400 and 1300 B.C. Plato makes the kingdom of Troy in the time of Priam, 1184 B.C., a dependent on the Assyrian empire. Herodotus, when speaking of an event which happened 711 B.C., states, that the Assyrians had ruled Upper Asia for 520 years previously; dating, doubtless, from the establishment of the empire, not of the monarchy; and also casually names "Tigris" as "flowing near Nineveh"—thus establishing the locality as well as great antiquity of their power. The true name of Sardanapalus was probably Asser-Hadan-Pul, syllables found to be used in the names of later kings.



VIEW OF THE TOMB OF THE PROPHET JONAH ON THE MOUND OF NEBBI YOUNIS, FROM A SKETCH BY MR. ROMAINE.

A valuable chapter is contributed to Bonomi's work by the learned Mr. Samuel Sharpe, who therein presents the reader with a compendious Sketch of Assyrian history.

After its conquest by Persia, Babylon still continued a large city; but ultimately it was superseded by that of Antioch, built by Seleucus.

The mound Nimroud discovered by Mr. Layard is supposed by Bonomi to be identical with the Reson of Genesis. Here Mr. Bonomi and Mr. Layard are at issue.

With Nineveh the name of the prophet Jonah must be ever associated. Mr. Bonomi understands his statement that there were 120,000 persons who "could not discern between their right hand and their left," to be a figurative expression, generally understood of young children;—usually one-fifth of the population, which was accordingly, as already stated, in Nineveh at that time about 600,000. Rich tells us that among the mounds that excited his curiosity was one on which is built the village of Nebbi Younis, the prophet Jonah, whose tomb is shown there, and much revered by the Mahomedans.

Existing ruins show, says Mr. Layard, that Nineveh had its greatest extent and prosperity in the time of the Kings of the second dynasty, that is to say, of the Kings mentioned in the Scriptures. It was then that Jonah visited it, and that reports of its size and magnificence were carried to the West, and gave rise to those traditions from which the Greeks mainly derived their information. It was then, too, that the wealth, luxury, and power of its inhabitants, called forth the indignant protests of the prophets, and led to those vices and that effeminacy which ultimately brought about the destruction of the city and the fate of the empire.

The corroborations and illustrations of Holy Writ, furnished by those sculptures already discovered, are innumerable. They and the Scriptures throw mutual light on each other. The dim places of Ezekiel become bright as day. Thus, the castles of the people who are taking refuge in the ships, are distinguished by the shields hung round the walls; alluded to by the prophet, touching the Tyrians:—"The men of Arvad, with thine army, were upon thy walls round about, and the Gammadims were in thy towers; they hunged their shields upon thy walls round about." From these remains, also, we gather at once the physique and the morale of society, the human taste then and there.

The palaces and temples that now excite our marvel were monuments, preserving the national archives, carved on stone sculptures symbolised the exploits of the kings,—the forms of the written character upon the walls recorded the history of the people—the invocation to their divinities. On the back of the slabs used for these purposes, was carved an inscription, recording name, title, and genealogy of the royal founder of the edifice. principal entrances to the chambers, were placed gigantic winged and lions with human heads, like the Cherubim guarding the the Noachic paradise. Among the Jews, too, the cherubic symbol placed in the adytum of the tabernacle, and afterwards in the corresponding sanctuary of the temple; and here, in the Assyrian they are never found, excepting as guardians of portals. The these figures were, doubtless, expressive of the divine ubiquity of human head, of wisdom; the animal body, of strength. The bolical representations of winged human beings, came to be the course of time, literally interpreted; and hence the painter revels in his portraiture of angelic forms.

The smaller doorways of these discovered palaces were by colossal figures of divinities or priests. There were no of doors or gates; but metal hinges have been discovered holes for bolts exist in many of the slabs; as in the Book of we are told that the priests of Babylon "made fast their with doors, with locks and bars, lest their gods be sp robbers." Under the pavement slabs at the entrance deposited small figures of the gods, probably as a pi to the building. These M. Bonomi conjectures to be Teraphim.

The Winged Man represented divinity among the Assyri frequently appears among the sculptures, and in a coloss Cut battle-pieces are the most profuse ornaments of the walls, and show the glory and the shame, the excitement the cruelty, of ambitious and aggressive warfare. Wom the spirit with which they are executed. Take as an exa following:—

The conquerors are led by two horsemen, a eunuch and panion shield-bearer; after whom come two bearded warrior discharging arrows at the flying infantry of the enemy. figure presents a different scene.

It remains to speak of the character in which the ins are written. It is called the cuneiform, cuneatic, wedge and arrow-headed; *tête à clou* in French, *Keilformig* in though the term "cuneiform," preferred in English, best of the peculiar shape of the letters, composed as they are of distinct wedges combined together, the letters being s from each other by a particular sign. It cost Professor G thirty years' study to determine this alphabet from Per inscriptions, which are in Zend, and belong to the period of and Alexander. He was followed by M. Bournouf and I



THE ROUT AND FLIGHT OF THE ENEMY.



COMPLETION OF SIEGE; PEOPLE LED INTO CAPTIVITY.

Lassen, of Bonn. This subject will be found fully considered and amply illustrated in M. Bonomi's book, which is commended

reader's serious perusal. This handsome library volume is embellished with upwards of 300 engravings, all admirably executed; a profusion of illustration almost unexampled even in this age of popular ar

Miscellaneous Notices.

THE ART-UNION PRIZES.

The distribution of the Prizes of the Art-Union Society took place on the 27th ult., at the Lyceum Theatre: when, out of a subscription of 12,903*l.* 9*s.*, 6449*l.* was set apart "for the purchase of pictures, bronzes, statuettes, tazzas, and prize engravings;" the remainder being thus disposed of: "cost of engravings of the year, 3648*l.* 19*s.* 4*d.*; printing, and other expenses, including a reserve of 2½ per cent. required by the charter, 2813*l.* 9*s.* 8*d.* The sum set apart for prizes to be selected by the prizeholders themselves was thus allotted, viz.:—24 works of art, value 10*l.* each; 20 at 15*l.*; 20 at 20*l.*; 20 at 25*l.*; 20 at 40*l.*; 12 at 50*l.*; 10 at 60*l.*; 4 at 70*l.*; 8 at 80*l.*; 3 at 100*l.*; 2 at 150*l.*; and 1 at 200*l.* To these are added:—5 bronzes, "Satan Dismayed;" 40 Parian statuettes, "Solitude;" 30 tazzas in iron; 25 sets of medals; 488 impressions of "The Crucifixion."

THE GERRARD'S HALL CRYPT.

The City authorities have decided that the Crypt, lately discovered on the site of Gerrard's Hall, in Basing Lane, shall be removed, and that the improvements, as at first laid out, shall be carried on unimpaired of this relic, which is, on so many accounts, worthy of preservation. The stones are, it is said, to be so separated from one another as to be easily rearranged in their original shape on another site. This will not relieve the City authorities from the well-earned character for Vandalism which they have so long enjoyed. The Society of Antiquarians, it seems, protested in vain; but it will, at all events, have done all in its power to avert the total destruction of this relic, by getting views and plans taken of the whole structure, which are to be brought forward at a meeting to be held on the evening of the 12th instant.

DISCOVERY OF A PICTURE OF LEONARDO DA VINCI.

The Parisian Art world has been of late indulging in disquisitions upon a recently discovered picture by Leonardo da Vinci, of which M. Louis Viardot, a well-known virtuoso, has given a description and a history. The facts are curious and interesting, the more so from being vouched for by a name of great respectability. The picture represents a recumbent figure in the graceful position of Titian's Venus. It probably first came to France in the care of the Mancini family, from which it was allowed to pass into the gallery of that of Orleans. Duke Louis, son of the regent and grandfather of Philip Egalité, was an iconoclast-Jansenist, as lovers of old pictures have reason to remember,—for he destroyed with his own hands the most celebrated figures in his gallery. Amongst others, he destroyed the Io and the Leda of Correggio, by cutting the heads out of the pictures, throwing them into the fire, and breaking the remaining portions in pieces. The painter Noel Coypel rescued the ruins of these pieces, which were subsequently restored by the care of Denon and the talent of Proudhon, the latter having had the courage to paint a new head to the picture of Io. It was at this time, when Louis's paroxysm was at its height, that Noel Coypel, director of the Orleans gallery, saved the Venus of Leonardo by painting over it a drapery and other additions; and under this disguise it remained till its history became obscured by time. The panel was taken in 1793 to the pavilion of Gabrielli at Charenton, and thence at a later period to the garrets of the Palais Royal. Louis Philippe, who was aware of the history of the picture, sought in every quarter for it, but without success. Accident has now brought it to light. It has just been sold amongst the furniture of the Palais Royal; and at the auction where it was shown, dirty and frameless, and concealed under the daubs of Noel Coypel, it fetched a sum of 100 francs. The purchaser had the sagacity to believe that an old cedar panel must contain some older painting than that which appeared on the face of it. He caused the upper layer of paint to be taken off, and under it discovered the original picture of Leonardo. The Venus it represents is supposed to be a portrait of Lucretia Crivelli, mistress of Lodovico Sforza, who patronised the painter. In perfection of finish, it is said to be as marvellous as the Joconde of the Louvre, which it also rivals in completeness of preservation. The price which it may realise is at present not soon suggested.

LORD JOHN RUSSELL AND THE POET MOORE.

A fly-leaf in the "Edinburgh Review," just out, states:—"Messrs. Longman and Co. have to announce that the MS. Journals and Papers of the late Thomas Moore are in preparation for publication, and that they will be edited by the Right Hon. Lord John Russell."

A FRESCO BY JULIO ROMANO.

Through the instrumentality of Baron Overstone, a fresco, painted by the renowned and prolific pupil of Raphael, has been forwarded to England for deposit in the National Gallery. This will be a valuable addition to our collection of works of art from the hand of the old masters. It is to be hoped that it will be so set up that it may easily be moved when we have our new gallery. The custom-house authorities of Liverpool have had orders not to disturb the package on its arrival at that port, per steamer, from Leghorn, but to forward it to London unopened.

THE PRESIDENT OF THE FRENCH REPUBLIC AND HIS BUSTS.

It seems that the prefect of the department Du Nord has been induced to take a step of some interest in an artistic view. As every one knows, Louis Napoleon ordered his bust to be put up in the official hall of every mayor in France, and it was attempted to erect a monopoly in favour of a particular likeness executed by "a friend at court." The mayors of the department Du Nord infringing this monopoly, having purchased busts of the President more remarkable for the smallness of the price than for resemblance or merit of execution, have had a circular sent round to them by the prefect, requesting them not to set up any busts but those executed by the favoured monopolist. After all, this recommendation may not be unimportant,—so much diversity occurring in the portraiture of public personages, that, as is an ascertained fact, in 1830, several country mayors purchased busts of William I. of the Netherlands, mistaking them for portraits of Louis Philippe.

IRISH NATIONAL EXHIBITION.

It seems that the Irish National Exhibition, which is to be held at Cork, is progressing even more favourably than its promoters at first anticipated. Contributions continue to flow in, not only from Irish quarters, but from distinguished houses in England; Mr. J. Rendell, of the Low Moor Iron Works, at Bradford, and Stephens and Sons, of Southwark, appearing prominent as supporters of the undertaking. The first of May was fixed as the last day on which applications for space could be received; and it is stated that the Exhibition may be expected to be completed in a fortnight from that time. The powers of the electric telegraph will be practically illustrated in the new building, the working of that invention being comparatively little known in Ireland.

THE LATE LORD PANMURE'S MUNIFICENCE.—Lord Panmure has left 500*l.* to the Montrose Antiquarian Society; 1000*l.* to the Brechin Mechanic's Institution; and 100*l.* each to the Arbroath and Forfar Mechanic's Institutions.

CRYSTAL PALACE AT PARIS.

The project for the establishment of a Crystal Palace in the Champ Elysées is going on with great activity. A company, formed of capitalists, has already subscribed the amount necessary for this undertaking, and it is occupied in examining the plans which have been submitted by a number of French and foreign architects. M. Sallandrouze de Lamornais, commissary of the Government at the London Exhibition, is at the head of this company.

THE EMIGRATION MANIA.

The "Galway Mercury" states that so great is the anxiety felt by the poor labouring classes in that part of Connaught to escape from "the land that bore them," that such of them as have been fortunate enough to obtain employment on drainage works have adopted the following novel and extraordinary mode of enabling themselves to emigrate:—It appears they are paid fortnightly, and when the pay-night arrives, about 300 of them assemble and pay 6*d.* each into a general fund. A number of tickets, corresponding with the number of persons present, are then placed in a hat, and on one of these the word "America" is written, all the rest being blank. A ballot then takes place, and the lucky drawer of the prize ticket has his passage to America paid for him, and receives a small sum to subsist him for some time after his landing there. During the week just closed no less than six vessels have set sail for Queenstown, laden with emigrants, bound respectively for Boston, Quebec, New York, and St. John's. The gross number amounted to 877 souls.

LEGACY DUTIES.

A statement of the legacy duties paid in Great Britain for the year 1851 shows the total amount of capital which during the twelve months became liable to the tax to have been 49,402,391*l.* Of this, the portion which paid the duty of 1 per cent., the bequests being to children or parents, was 28,721,005*l.*; the portion which paid 3 per cent., for bequests to brothers or sisters, was 14,332,765*l.*; the portion at

5 per cent., to uncles and cousins, was 1,788,469*l.*; that at 6 per cent., to more distant relations, was 229,652*l.*; and that at 10 per cent., to strangers, was 4,385,308*l.*, or about an eleventh part of the whole. The average capital on which legacy duty has been paid during the fifty-four years from 1797 has been 29,824,291*l.* per annum. The total sum which accrued to the revenue last year for stamp duties on legacies, on probates, administrations, and testamentary inventories, in Great Britain, was 2,253,039*l.*, being an increase of 34,824*l.* over 1850. For Ireland the amount was 125,641*l.*, being an increase of 1060*l.*

THE LONG DROUGHT.

From the 18th of February to the 28th of April, the number of days on which any rain, snow, or sleet has fallen may easily be enumerated. They were only the following seven:—

		Inches.
Feb.	28	0.02 A slight shower of sleet.
March	1	0.15 Showery.
"	2	0.03
"	27	0.02 Snow in the morning.
"	29	0.05 Rain in the night.
April	4	0.01 Slight shower, forenoon.

0.28

Not three-tenths of an inch of rain in nearly the latter half of February, the whole of March, and three weeks of April! What becomes of the ancient popular character of these months? February fill-dyke, wet March, and showery April!

THE CRYSTAL PALACE.

In consequence of the vote of the House of Commons adverse to the retention of the building of the Great Exhibition, it will be sold to private parties, whose offer of 70,000*l.*, made through Mr. Francis Fuller, had already been conditionally accepted,—the condition being that the bargain should not take effect if the building were retained on its original site.

DUTY ON THE IMPORTATION OF FOREIGN BOOKS.

The following Memorial from the Council of the Society of Arts, praying for the remission of the duty on foreign books, has been forwarded to the Lords of the Treasury:—

"To the Lords Commissioners of her Majesty's Treasury. The memorial of the Council of the Society incorporated by Royal Charter for the Encouragement of Arts, Manufactures, and Commerce, sheweth—

"That your memorialists are earnestly endeavouring to carry out the above-mentioned objects, and though quite sensible of the advance made and still making in industry and commerce by the people of this country, they are at the same time conscious that in many branches of industry the people of other countries surpass our own in the application of art and science to the various processes of manufacture.

"That there is scarcely a branch of industry that has not been most carefully investigated by men of learning and science in foreign countries, and that the result of those investigations is published from time to time, to the great advancement of the knowledge and skill of manufacturers and artisans.

"That the essentially practical character of our people renders them too apt to neglect the advantages conferred by such investigations, and when to this is added the difficulty of acquiring a foreign language, it will appear that the natural barriers to obtaining a knowledge of this most useful kind of literature are very great.

"That considering these unavoidable difficulties, it appears unreasonable to your memorialists that additional obstacles should be raised by legislative interference; for your memorialists can consider in no other light than that of an obstacle the heavy import duty upon foreign printed books,—a duty so heavy as to nearly extinguish the circulation of such books in this country, while it yields no material addition to her Majesty's revenue.

"That the amount received as duty on this head was highest in 1846, when it amounted to no more than 10,492*l.*; that it sunk in 1847 to 9201*l.*, in 1848 to 8843*l.*, in 1849 to 7762*l.*, and in 1850 to 7751*l.*

"That your memorialists are aware that as long as your lordships find it necessary to continue the heavy excise duty on the paper manufactured in this country, it would not be possible to admit foreign books in the English language free of duty.

"Your memorialists, however, earnestly pray that your lordships will take measures to abolish altogether the import duty on books printed in foreign languages, and thus, without damage to her Majesty's revenue, add greatly to the advancement of the sciences, arts, industry, and general intelligence of the nation."

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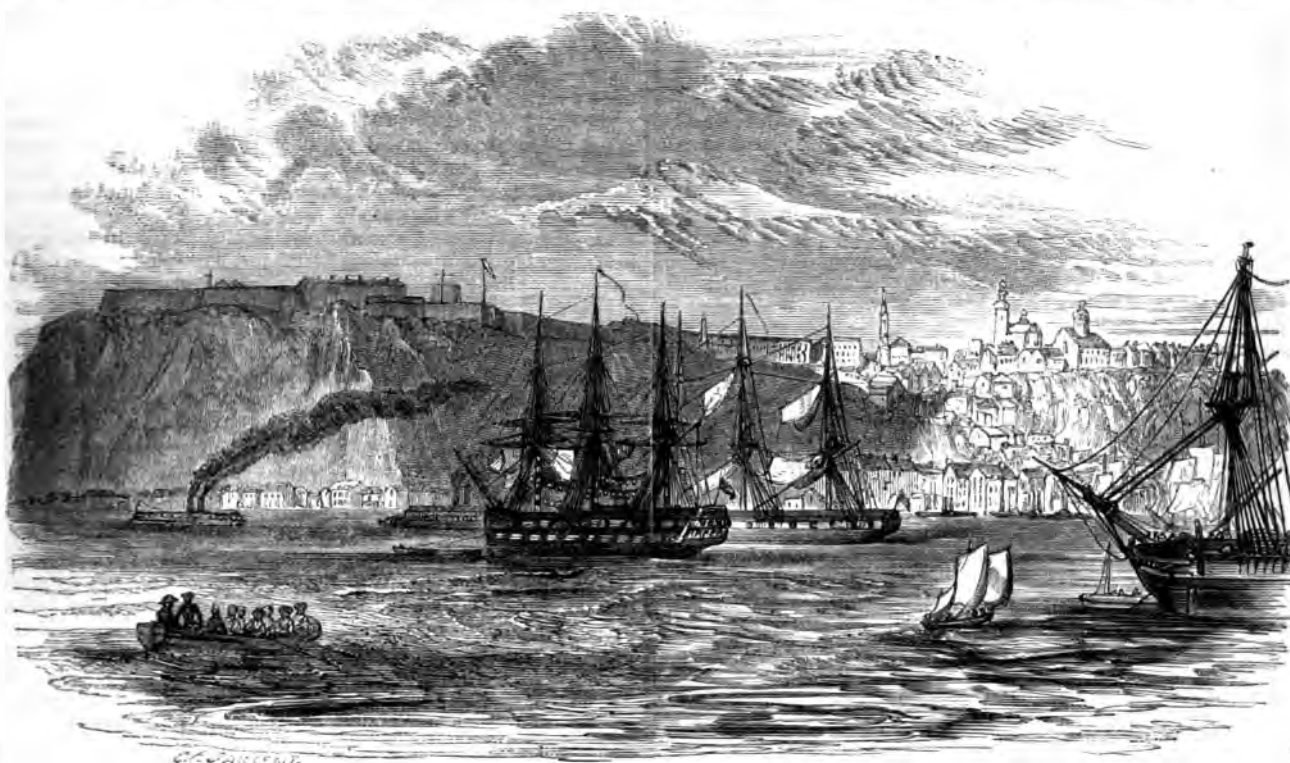
SATURDAY, MAY 15, 1852.

PRICE TWOPENCE.

CANADA.*

FOR the improvement of the condition of the individual and the race, two means have been proposed as most eligible—Education and Emigration. Neither of these is, however, an unmixed good, and much depends on conduct and judgment, in order to secure the utmost advantages derivable from their adoption. In the latter case, the selection of the spot in which the intending emigrant proposes to invest his capital, skill, and labour, is a matter of paramount importance.

Popular choice has at different periods manifested different preferences. To revert to an epoch no earlier than 1826: from that year to 1829, the tendency of emigration from England was to Australia and the Swan River. But so many persons reaped only disappointment from the trial, returning to their native land in a worse condition than they went forth, that the tendency again changed; and, in 1830, the great tide of emigration was found to be flowing westward. "Canada," says Mrs. Moodie, "became the great landmark for the rich in hope and poor in purse. Public newspapers and private letters teemed with the



QUEBEC.

unheard-of advantages to be derived from a settlement in this highly-favoured region." Mrs. Moodie's experience may be accepted as the type of the disappointment to which many have been destined; but to others the adventure has brought riches and honour; a long and happy life, and the probability of a large estate descending to their distant posterity.

To those whom either choice or necessity may have induced to migrate from their native shores in search of fortune or excitement, the past history and present condition of Canada cannot be uninteresting. The two publications which give occasion to our present reflections teem with information respecting both of great practical value.

Sir Richard Bonnycastle's work presents a personal narrative, combined with a military and political examination of the Canadas; and in particular describes the Rebellion of 1837-8 in its details, causes, and results. Canada is now an united country; but it was not always such. In 1791, the province of Quebec was divided into two provinces, respectively named Upper and Lower Canada. Canada was originally French, both by claim of discovery and the right of possession; and

the descendants of the original proprietors even now partake the prejudices of their forefathers. They shake off, it is said, the dust of feudalism with painful difficulty. Instead of quietly yielding to a better order of things, they prefer to dwell, from sire to son, the willing slaves of customs derived from the obsolete decrees of a despotic monarchy. But, with all these prejudices in favour of an extinct régime, the Frenchman, by his gaiety and his recklessness, was well qualified to ingratiate himself into the confidence of the warlike and untutored Indian. And to this day, we are told, that even there, "where in the interminable wilderness all trace of French influence is buried, the Indian reveres the recollections of his forefathers;" and even now "wherever the canoe penetrates the solemn and silent shades of the vast West, the Bois brûlé, or mixed offspring of the Indian with the Gaul, may be heard awakening the slumber of ages with carols derived from the olden France, as he paddles swiftly and merrily along." It was not until 1756 that the English disputed with the French this wigwam territory.† Under the administration of the great Earl of

* "Canada, as it was, is, and may be." By Lieut.-Col. Sir Richard H. Bonnycastle, Royal Engineers. With considerable additions, and an Account of Recent Transactions. By Sir Jas. Edward Alexander, K.L.S., &c. 2 vols. COLBURN.

† "Roughing it in the Bush; or, Life in Canada." By Susanna Moodie. BENTLEY.

† Canada, according to Sir Richard Bonnycastle, is derived from a very universal Indian word, signifying a town, village, or collection of wigwams. Thus, Canadagna, in the Genesee country, was formerly a large Indian settlement, and strangers coming so unexpectedly upon the red men, as the first adventurers did, would naturally have the large villages pointed out to them.

Chatham, Boscowen and Abercrombie assumed the command of an immense fleet, and an army of 50,000 men. Cape Breton, Louisbourg, the Island of St. John's, Port Frontenac, Fort du Quesne, and the territories dependent, fall under the British arms, conducted by Amherst, Bradstreet, and Forbes;—this was crowned by the surrender of Quebec, and the consequent fall of the sceptre of France in Canada, at the feet of the immortal Wolfe. By the consequent treaty of Fontainebleau, Great Britain became possessed of Canada, Nova Scotia, Cape Breton, and all the other islands and territories in the St. Lawrence. Commerce soon commenced operations: in the year 1763, the exports from Britain amounted to 86244. The British power gradually consolidated itself, notwithstanding the attacks on it of Republican America; and in 1786, Canada was formed into one portion of a Vice-royalty. But it was found impossible to reconcile the jarring interests of the original French settlers and the new English comers. Pitt accordingly proposed in the British Parliament the separation of the two classes, differing as they did in language and in feeling; and in 1791, the province of Quebec was divided into two grand divisions by the Ottawa River, calling that to the west, Upper, or English Canada; that to the east, Lower, or French Canada; granting to each portion a separate constitution, adapted to their situation and prospects. But still anomalies were produced by the admixture of French and British laws, and these proved the seeds of future mischief.

By the year 1812, however, the affairs of Upper and Lower Canada became so closely interwoven as to be for three years identified—that is, during the whole period of the American war. From that contest the Canadas emerged triumphant. With an open water frontier of upwards of a thousand miles in extent, they were held against all the available means brought against them on the part of the neighbouring Republic, by a mere handful of British troops, and an agricultural population, that turned the reaping-hook and the ploughshare into the sword and the bayonet. There is indeed much truth in our author's position, that Canada is destined to "be to the United States of America, throughout all the modern unions down to the Southern Ocean, what Great Britain has been to Europe—the refuge and the fountain, the fortress of protection from extreme political excitement, and the well of living waters which shall feed and nourish the persecuted soul." Its freedom from the slave-trade is a distinguishing trait, from which it derives as honourable as evident an advantage.

It is not our intention in this paper to enter into the particulars of the attempts at revolution made by the notorious Mackenzie and Papineau, nor into the political questions connected with the contest; those disturbances, now happily ended, having no present bearing on the condition of the colony. Sir Francis Head finds an apologist in Sir Richard Bonnycastle; and in Mrs. Moodie, an enthusiastic advocate. That lady, a poetess, indeed, acquired great celebrity during the contest by her loyal lyrics. Previous to her departure for the far West, she had won some reputation in England under her maiden name of Susanna Strickland, by a volume of poems published in 1831. With the strong feelings that she expresses in favour of her native country, her opinions on the mode of life in the Bush must be accepted with much caution. Her natural sphere of action was in the circle of refinement; and she never could thoroughly sympathise with the rough-workers who are the pioneers of states. Her evidence, however, is useful to her own class, and decisive of the unfitness of the mode of life for those whose minds are over cultivated and their hands unaccustomed to hard labour. Mrs. Moodie and her husband were well qualified for intellectual and moral workers, but not for material labourers. Their standard of thought and feeling was too high. On their very first entering the bush, they were shocked by the Borrowing System established there, which struck them as mendicancy and dishonesty; whereas it was nothing but a recognised sort of Communism evidently needful under the circumstances of the case. No doubt it was abundantly annoying to the delicate and sensitive apprehensions of well-trained and fastidious people. There is manifestly no room for such indulgences in the bush, whatever amount of capital the emigrant may possess. Accomplishments are for other conditions of existence. The only rule observable in the backwoods is that announced by the venerable Hooker, in the few brief words—"Life is before Law." Before a high state of morality and a nice observance of good manners are possible, provision must be made for the physical necessities of the human being. This had to be secured both by Mrs. Moodie and her neighbours—but she and they differed in one important point; they were resigned to the circumstances, and resolved to make the best of them; she was discontented with them and their prospects, and pined still for the comforts of the home she had left.

While, however, we must be cautious in adopting Mrs. Moodie's point of view, we are free to concede that she has good grounds for condemning the puffery of those emigration pamphlets, "which prominently set forth all the good to be derived from a settlement in the backwoods of Canada; while they carefully conceal the toil and hardship to be endured

in order to secure these advantages." Such pamphlets, says Mrs. Moodie, "told of lands yielding forty bushels to the acre, but they said nothing of the years when those lands, with the most careful cultivation, would barely return fifteen; when rust and smut engendered by the vicinity of damp overhanging woods, would blast the fruits of the poor emigrant's labour, and almost deprive him of bread. They talked of loghouses to be raised in a single day by the generous exertions of friends and neighbours, but they never ventured upon a picture of the disgusting scenes of riot and low debauchery exhibited during the raising, or upon a description of the dwellings when raised,—dens of dirt and misery, which would, in many instances, be shamed by an English pig-sty. The necessities of life were described as inestimably cheap; but they forgot to add that in remote bush settlements often twenty miles from a market town, and some of them even that distance from the nearest dwelling, the necessities of life, which would be deemed indispensable to the European, could not be procured at all, or, if obtained, could only be so by sending a man and team through a 'blazed' forest road,—a process far too expensive for frequent repetition."

All these circumstances should be clearly known to the intending emigrant; and no one who is not thoroughly willing to encounter "toil and hardship," should venture on the project. The founders of states must be heroes, not Sybarites. Such heroes, too, being real and not fictitious ones, will no doubt show disagreeable enough in their actual personalities. "Misery" made Mrs. Moodie "acquainted with strange" companions. Her sketches of character are painted with a Rembrandt effect,—a light from above. With the illumination thrown upon them by her superior intelligence, their features come out with a fierceness and a prominence calculated to startle and arrest attention. Such vivid portraits as hers are of rare occurrence even in descriptive literature. We must pause to examine a few of these; for here, too, it will be well for the reader to benefit by her experience. In order that he may do this, we make our selection from the people whom she found in Canada, not from those who went out with her.

One of the first acquaintances made by Mrs. Moodie in the woods, was a juvenile female representative of the Borrowing System. She was a girl of some seventeen years, with sharp, knowing-looking features, a forward, and Mrs. Moodie adds, "impudent" carriage, and a port, flippant voice, dressed in a ragged, dirty purple stuff gown, cut very low in the neck, with an old red cotton handkerchief tied over her head; her uncombed, tangled locks falling over her thin, inquisitive face, in a state of perfect nature; legs and feet bare; and swinging to and fro in her coarse, dirty red hands, an empty glass decanter. Altogether, she seemed to Mrs. Moodie an odd creature; but this rude girl soon taught her to feel that she considered herself as much a lady as she was; insisting at the same time upon her accepting the loan of the decanter, for the convenience of holding some possible whiskey that the new comer might wish to bottle. As the strange visitant would not be gainsaid, the decanter was retained. In a few days the damsel again presented herself for the loan, demanding not only the decanter, but as much whiskey as it would contain. "Come," said the wench, "fill the bottle, and don't be stingy. In this country we all live by borrowing. If you want anything, why just send and borrow from us." And such was the Yankee trick by which Mrs. Moodie was initiated into her new mode of life—a trick followed by others still more importunate and audacious—ultimately got rid of by trusting the rude girl with a small sum of money which she never returned to repay.

All this, dishonest as it might appear, was but the custom of an elementary state of society; the members of which all rowed in the same boat, and were all hail fellow well met. But this equality and independence must be abhorrent to more civilised persons brought up in the midst of European prejudices. Mrs. Moodie, indeed, calls the Yankee damsel's successive attempts to borrow "swindling expeditions;" nor does she look with a more favourable regard upon the similar conduct of a Mrs. Betty Fye, whom she even accused of "robbery," and consequently sent away in a rage. Both terms are too harsh; such terms are relative only in their meaning, and had little application in a merely incipient social condition where more respect was to be paid to life than to law. The Yankee is a knowing fellow at a bargain; and what would be sharp practice at home is the normal condition of traffic in the clearing. "The simplicity, the fond, confiding faith," says Mrs. Moodie, "of childhood, is unknown in Canada. There are no children here. The boy is a miniature man—knowing, keen, and wide awake, as able to drive a bargain and take an advantage of his juvenile companion as the grown-up world-hardened man. The girl, a gossiping flirt, full of vanity and affectation, with a premature love of finery, and an acute perception of the advantages to be derived from wealth, and from keeping up a certain appearance in the world. The flowers, the green grass, the glorious sunshine, the birds of the air, and the young lambs gambolling down the verdant slopes, which fill the heart of a British child with a fond ecstasy, bathing the young spirit in Elysium, would float unnoticed

before the vision of a Canadian child; while the sight of a dollar, a new dress, or a gay bonnet, would swell its proud bosom with self-importance and delight. The glorious blush of modest diffidence, the tear of gentle sympathy, are so rare on the cheek, or in the eye of the young, that their appearance creates a feeling of surprise. Such perfect self-reliance in beings so new to the world, is painful to a thinking mind. It betrays a great want of sensibility and mental culture, and a melancholy knowledge of the arts of life."

Such is the Canadian child; and as "the child is father of the man," the adult may be expected to be but the development of the infant type. Phoebe H—, a fine girl, fell sick and was at the point of death. On questioning her, Mrs. Moodie found her to be ignorant of a future state; whereupon she began to explain to her the principles of religion. The poor girl was surprised, and even horror-struck, and sat like one in a dream. She had never, she said, prayed in her life. Mrs. Moodie read the Bible to her, much to the comfort of the dying invalid. But her mother was disconcerted at all this, and interrupted their communion as much as possible, by making all the noise she could,—sometimes exclaiming, "I desire you not to put such thoughts into my daughter's head. We don't want to know anything about — here." Neither could this heathen parent be persuaded that her daughter was really in any danger, until the doctor told her that her case was really hopeless; then the grief of the mother burst forth, and she gave way to the most frantic and impious complainings.

Profane swearing is an ordinary practice in the back woods. Old women plentifully indulge in it; and one odd customer remarked that it was no use being in the bush if he had not liberty to swear more than in the old country. This man was, indeed, a sample of the sort of people the Canadian adventurer may encounter. Mrs. Moodie names him "the little stumpy man." Her husband had first met him in the mail-coach, going up to Toronto, and was so amused with his shrewdness as to tell him, that if ever he came into his part of the world, he should be glad to renew their acquaintance. This invitation was interpreted on the most liberal scale by the invited. In due time, he made his appearance, and imposed on their hospitality for nine months together,—eating, drinking, smoking, and venting his ill-temper on them, all at their expense. His ill-temper turned out to be remorse of conscience. He had committed a murder,—at any rate, an act of homicide that he felt to be as bad as one. One night while he was lying at the bottom of his boat, there came to the shore a man who was a noted leader among the rebel Buenos-Ayreans, whom the government wanted much to get hold of. This man this little stumpy individual shot. The devil he supposed it was who tempted him to put a bullet through the man's heart. "He was," said he, "an enemy to the flag under which I fought, but he was no enemy to me,—I had no right to become his executioner; but still the desire to kill him for the mere devilry of the thing came so strongly upon me that I no longer tried to resist it. I rose slowly upon my knees,—the moon was shining very bright at the time,—both he and his companion were too earnestly engaged to see me, and I deliberately shot him through the body. He fell, with a heavy groan, back into the water; but I caught the last look he threw up to the moonlight skies before his eyes glazed in death. Oh! that look!—so full of despair, of unutterable anguish; it haunts me yet,—it will haunt me for ever! I would not have cared if I had killed him in strife,—but in cold blood, and he so unsuspecting of his doom! Yes, it was murder; I know by this constant tugging at my heart that it was murder!"

Such is the gloomy side of the picture; its bright side, it is acknowledged even by Mrs. Moodie herself, is full of promise. While to the gentleman Canada presents, in her opinion, no advantages at all, it offers many to the poor industrious working man, "who works hard, puts up with coarse, scanty fare, and submits with a good grace to hardships that would kill a domesticated animal at home. Thus," adds our authoress, "he becomes independent, inasmuch as the land that he has cleared finds him in the common necessities of life; but it seldom, if ever, in remote situations, accomplishes more than this. The gentleman can neither work so hard, live so coarsely, nor endure so many privations as his poorer but more fortunate neighbour. Unaccustomed to manual labour, his services in the field are not of a nature to secure for him a profitable return. The task is new to him; he knows not how to perform it well; and conscious of his deficiency, he expends his little means in hiring labour, which his bush-farm can never repay. Difficulties increase, debts grow upon him, he struggles in vain to extricate himself, and finally sees his family sink into hopeless ruin."

Far different from this is the strain in which Mrs. Moodie, contemplating the picture of Canada, when the stern sons of labour shall have subdued the soil, writes of the land and the city of Quebec,—that rock-defended height on which no foreign invader may ever dare to plant a hostile flag. Enthusiastically as well as eloquently she calls

upon Canadians to "look at the St. Lawrence, the king of streams, that great artery flowing from the heart of the world through the length and breadth of the land, carrying wealth and fertility in its course, and transporting from town to town along its beautiful shores the riches and produce of a thousand distant climes." When in this mood, our authoress paints Canada as the first, the happiest, the most independent country in the world,—as the land in which the sons of British mothers have found an altar and a home; as that in which even she has ceased to lament her separation from the mother-country, and the loss of those luxuries which could not be enjoyed in the bush, and which she has learned to love as dearly as life, though "once she hated it with a hatred so intense that she longed to die, that death might effectually separate her from it for ever."

These volumes of Mrs. Moodie's, the reader will perceive, contain both "the bane and the antidote,"—the bitters, but also the sweets, of emigrant enterprise. Mrs. Moodie's views of things, like those of other people, brighten with her own fortunes. While in the bush, the alarm of the Canadian rebellion reached her and her military husband. The news was received with astonishment by the settlers. Before the cold, snowy morning broke, the family was stirring. From an injury done to his leg in ploughing, Mr. Moodie was on crutches; but his spirit was strong within him, and he left his forest home for the field of action at Peterborough, where he joined a party of two hundred volunteers bound for Toronto. The backwoodsmen, perfectly ignorant of the grievances and abuses that had induced insurrection, regarded the rebels as monsters, and gathered in astonishing numbers, with no less astonishing rapidity. Such, at all times, with the uninquiring population of all countries, is the primary instinct in favour of established order. Our poetess herself published the following "Address to the Freemen of Canada:—"

AN ADDRESS TO THE FREEMEN OF CANADA.

Canadians! will you join the band—
The factious band—who dare oppose
The regal power of that bless'd land
From whence your boasted freedom flows?
Brave children of a noble race,
Guard well the altar and the hearth;
And never by your deeds disgrace
The British sires who gave you birth.

What though your bones may never lie
Beneath dear Albion's hallow'd sod,
Spurn the base wretch who dare defy
In arms, his country and his God!
Whose callous bosom cannot feel
That he who acts a traitor's part,
Remorselessly uplifts the steel
To plunge it in a parent's heart.

Canadians! will you see the flag,
Beneath whose folds your fathers bled,
Supplanted by the vilest rag?
That ever has to rapine led!
Thou emblem of a tyrant's sway,
Thy triple hues are dyed in gore;
Like his, thy power has pass'd away—
Like his, thy short-lived triumph's o'er.

Ay! let the trampled despot's fate
Forewarn the rash, misguided band
To sue for mercy, ere too late,
Nor scatter ruin o'er the land.
The baffled traitor, doomed to bear
A people's hate, his colleagues' scorn,
Defeated by his own despair,
Will curse the hour that he was born.

By all the blood for Britain shed
On many a glorious battle-field,
To the free winds her standard spread,
Nor to these base insurgents yield.
With loyal bosoms beating high,
In your good cause securely trust;
"God and Victoria!" be your cry,
And crush the traitors to the dust.

We shall return to the subject in a future Number.

QUEBEC, of which we give a view in our front page, is the chief city of East Canada, and is situated on a bold promontory formed by the confluence of the river St. Charles with the St. Lawrence, and about 400 miles from the mouth of the latter. It was built by the French in 1608, and came into the possession of the English after Wolfe's victory, in 1759. Great numbers of British emigrants land yearly at Quebec. The population in 1843 was 36,173. Quebec has suffered considerably in political importance by the union of the Canadian provinces in 1840, and again by the late transfer of the seat of government from Montreal to Toronto. There is a railroad from Quebec to Melbourne, either finished, or in course of construction.

* The tri-coloured flag assumed by the rebels.

SPECIMENS OF MEDIEVAL ART.



BETWEEN the period of the decline of the Arts in Ancient Greece and their revival in Italy in the fifteenth century, a long interval, or Middle Age, occurs, during which, however, their traditions are not altogether lost, though the poetic genius which once inspired them was wanting. At a moment when the public taste seems to incline to retrace the steps,—the difficult and faltering steps of this uncertain period,—prompted by the feelings of veneration which the precedents of antiquity always command, it may be interesting to present a few specimens of art produced at successive periods in this age of its history, and endeavour to trace in them evidences of progress which connected the Art of the Old with that

contains many capital performances of the same class, including the disreputable pillage of the Van Eycks from Ghent; and in England we possess a considerable number, entirely distributed throughout private collections, with the exception of the two specimens of ancient art from the pencil of Taddeo Gaddi, presented to the nation by Mr. Conyngham, and now placed upon the walls of the National Gallery.

We now proceed to describe the subject of our engravings. The first is of the Byzantine class, and is evidently a work of very early date. The master is, of course, unknown. It represents a Virgin and Child, of a peculiar treatment, the drapery consisting entirely of black, edged with red, and heightened with gold. The usual monogrammatic contractions are introduced in the back of the picture, and both figures are provided with "nimbi." The painting is round, soft, and deeply toned in the flesh tints.

The next Engraving is from one of the marvellous works of Jan Van Eyck. This also is a Virgin and Child of exquisite execution, though slightly out of drawing. A contemporary artist thus speaks of the work under consideration:—"To offer a judgment upon the authenticity of works by the early masters which offer no other title than ocular examination, can only be safely done by those who are acquainted with the technical manipulation of the materials and an artistic acquaintance with their indisputable performances. Without presuming upon such qualifications in any high degree, we nevertheless



BYZANTINE SCHOOL.—VIRGIN AND CHILD.

of the New World. The engravings contained in this and the opposite page are from pictures contained in the very rare and interesting collection of Prince Wallenstein, which was brought over to this country about a couple of years ago under the influence of his Royal Highness Prince Albert, and which justly engaged a large share of the attention of our cognoscenti.

It may be advisable, *en parenthèse*, to give a short list of the most celebrated foreign collections, to show how much connoisseurs abroad esteem these venerable artistic documents; and how much a collection of the kind is required by the British public to explain by what steps were realized the glorious efforts of Italy in the fifteenth century. The collection we have now under notice is the only private one existing that can enter into any rank of rivalry with the Munich Gallery. The Louvre still contains a fair sprinkling of these early painters. The King of Holland availed himself of his former position in Belgium to purchase every fine authenticated work of the early school of his country. These pictures were at the Hague till the sale of the collection in 1850. The city of Bruges is also rich in such rarities, dispersed in a variety of civil and ecclesiastical buildings, and Ghent and Brussels contain in their museums much of great interest. The Museum of Antwerp possesses the most important in number and consequence of these schools, being the collection formed by one of the late burgomasters, Van Ertborn, who bequeathed the result of his acquisitions, by the expenditure of a handsome fortune, to his native city. This splendid gift was not accepted until the learned in art had been consulted, and awarded their judgment upon the authenticity of the various pictures. Berlin, too,



JAN VAN EYCK.—VIRGIN AND CHILD.

fearlessly assert that the present picture is truly attributed to Jan Van Eyck; it possesses, independent of the analogy of its inventive qualities, precisely the same tints, the same mode of blending, touch, and pencilling, the painter has employed in all the great works now existing in the several cities of Bruges, Ghent, and Antwerp, which we have recently investigated with the greatest attention. So little is Jan Van Eyck known in England, that, for many years, there has been before the eyes of all our connoisseurs, real and pretended, a picture by him in a public collection, frequented by all the lovers of pictures, and passed unnoticed under the designation of Leonardo da Vinci; it is called the 'Salvator Mundi,' and stands No. 277 in the catalogue of the Dulwich Gallery. No picture in the national collection invites the attention of the multitude so much as the solitary example of this master there placed; a sterling proof that where the true qualities of art exist, they attract even those unlearned in its theories."

We now come to the remarkable specimen of Lucas Van Leyden, the subject of which is a conversation between St. Peter and St. Dorothea, who stand in front of a magnificent curtain of green and gold embroidery, which is drawn before a column, over the top of which is seen a distant landscape. Nothing can be more wonderful than the perfect manipulation of this important production, which is upwards of four feet in height. St. Peter holds the Gospel and keys in one hand, and in the other a pair of spectacles, which reflect the quarried glass supposed to hold the position of the spectator. His beard and hair are short, grey, and curling, finished with a great degree of

ation, and his face is square and according to the usual type. mantle of the Saint is crimson blue, while St. Dorothea is in an ample white robe lined red and gold brocade over a of crimson and gold; her long air, confined by a small gar-of flowers, falls over her iers; in her right hand she a carnation, and the basket, d like a vase, which she has in ft, contains a variety of flowers. painting, so remarkable for chnical skill, is one of a series, ree companion pictures being n the Pinacotheca at Munich.

last illustration is from a icture by Israel von Meckenen aln), and represents "The station in the Temple." A ng performance. The scene place in front of an intricate eautiful Gothic altar-piece of colour and blue, supported by gures. The background is mished gold, from which the stand out in clear and bril-relief. The Virgin presents ant Christ to the High Priest, wears a cope of gold em-ry, representing the subject of nunciation. Behind the stands St. Joseph, holding a and searching his pocket for any offering. On the same a youth and three women, ngest of whom, richly carries two turtle doves. ether side of the altar are an and three women: the east the altar appears from to be a person of dis- he wears a blue cap on : an elderly woman—per- Anna—with a torch in her speaking to him; on this n, the youngest of the olds a dove. The whole strongly reminds us of the of Van Eyck. The companion work, representing "The ge of the Virgin," is in the Royal Gallery of Munich. Eyck should not be passed over without special mention, being, rarily considered, the inventor of the practice of painting in oils.



LUCAS VAN LEYDEN.—ST. PETER AND ST. DOROTHEA.

JAN or JOHN VAN EYCK was born probably at Alden Eyck, near Maas Eyck, on the Maas, about 1390–95, the exact date being doubtful. His elder brother, Hubert, was born, according to Van Mander, in 1366.

The Van Eycks resided chiefly at Ghent and Bruges, where they founded a great school. They are particularly distinguished as the inventors (or improvers) of *Oil Painting*; general repute gives the credit of this discovery to John, but from all the circumstances, Hubert appears to have a better claim to the invention. The whole of the upper part of the "Adoration of the Lamb," their masterpiece, was painted by Hubert, who was thus evidently complete master of the method; and at the date at which Van Mander fixes the discovery, 1410, Hubert was already forty-four years of age, while John, according to good evidence, was still but a youth.

Vasari's general statement that John Van Eyck was the inventor of *oil painting*, was formerly much impugned, as it was known that the mere inmixture of oil with colours was practised in Germany and elsewhere long before the time of Van Eyck. Vasari, however, in his life of Agnolo Gaddi, intimates that oil painting, though sometimes adopted by the earlier masters, was not employed by them for figures, but for decorative purposes only.

Mr. Wornum says:—"The works of the Van Eycks are not exempt from the stiff angular design and hard cutting outlines which characterise generally the art of the fourteenth and fifteenth centuries. They are also conspicuous for extraordinary detail, and bear the impress of having been executed with much slow and careful labour. The specimen of John Van Eyck in the National Gallery is as fine an example of the characteristics and excellences of his style as is to be seen anywhere. It exhibits a perfect understanding of objective truth of representation; and shows also a high appreciation of the pictorial value of perspective and accidental appearances."



ISRAEL VAN MECKELN.—THE PRESENTATION IN THE TEMPLE.

PROGRESS OF SCHOOLS OF DESIGN.*

THE progress which England has made within a few years in the adaptation of Art to manufactures, by the practical teaching of design, is so remarkable that a sketch of that progress during the year 1850-51 will be acceptable to every reader. At first a very strong prejudice existed throughout the country against the formation of Schools of Design,—a feeling which, whilst it impeded their speedy advancement, was at one time not unlikely to render them permanently unpopular. Doubtless these institutions have much within them that is faulty, both as regards the general scheme and the mode of carrying it out; but of this it is not our present purpose to speak, preferring rather, in this notice, to give a connected account of the state of the schools at the close of the year 1851. What has been done since, and what remains to be done, we shall treat of in future papers.

The number of branch schools throughout the country is now twenty-one, and increases every year. They have been established, with various success, in Spitalfields, Sheffield, Birmingham, Coventry, Hanley, Stoke, Manchester, Leeds, Huddersfield, York, Macclesfield, Worcester, Stourbridge, Newcastle, Nottingham, Norwich, Glasgow, Paisley, Dublin, Cork, and Belfast. In all these towns, except in York, where there are no manufactures, the schools have made great progress, especially during the year 1851. There is an obvious tendency amongst the manufacturing houses in the various towns named to avail themselves of the advantages placed within their reach; and it is remarkable that during the preparations for the Great Exhibition, the attendance of students in the schools was seriously diminished in consequence of the demand which everywhere arose for Art-workmen. One of the great stumbling-blocks to the progress of the schools had been the absence of means afforded for the general attainment of elementary instruction preparatory to that higher class of instruction which the schools are intended to bestow. This point, powerfully urged upon the Board of Trade, has led to a most useful measure, by which classes of elementary drawing, in connexion with the Schools of Design, have been formed in all the national schools where proximity to the more special Art establishments seemed to promise that such a step would be attended by useful results. The Committee of Privy Council on Education set in this measure a laudable example, which has been since followed by the promoters of Mechanics' Institutions in many places, and will, it is hoped, be further extended as the study of Art becomes more and more considered. In pursuance of the object in view, copies of the best works for elementary teaching, models, and other usual requisites, have been furnished to the classes, many of them gratuitously. Hitherto, as we have said, this experiment has been limited to those places where the establishment of Schools of Design have afforded facilities for following it out, or in the higher branches of instruction, and has not been extended to Ireland, where, however, it is hoped, it will be ultimately.

Mr. Paynter, inspector of the schools, says that the result of inquiries into the state of Art-education, with reference to this plan for its extension, is to show an already existing movement towards the study of Art among the artisan classes in the manufacturing districts. Many of the examples placed in the hands of the masters of the Schools of Design for distribution have already been disposed of, partly to new and partly to previously existing drawing classes, which have thus been furnished with means of substituting for loose and desultory exercises a sound system of tuition in the elements of Ornamental Art.

At no time since the foundation of the schools have the advanced classes borne so high a proportion to the number of students; and it is highly satisfactory to have to record, that of the numerous examples last year exhibited at Marlborough House, the greater number were produced by artisans, men chiefly engaged in occupations which necessarily limited the study of Art to their hours of relaxation. It is also gratifying to find that the proportion of the pupils in the schools actually engaged in manufacturing occupations connected with Art is progressively on the increase; and in the manufactories of the towns in which the schools are established their highest productions are found. There is no doubt that these beneficial results have been attained by the increased distribution of casts, books, and examples of Art, in localities where such objects had never previously found their way. These 5000 casts from the best specimens of sculpture and sculptured ornament, 900 copies of useful and valuable books, besides a copious supply of prints, drawings, and paintings, have been distributed during the past year amongst the branch schools and their auxiliaries; and to the lending libraries 2000 volumes have been furnished, all of them on subjects connected with arts and manufactures. These last-mentioned

items are sought for with such avidity, that it is suggested they may be further increased.

The annual grant to the branch schools amounts, in a round sum, to 7,500*l.*, of which Glasgow alone receives 700*l.*, and Manchester, Birmingham, and Sheffield each 600*l.*,—the lowest sum being that granted to the Huddersfield school, and amounting to 80*l.* In general, the last statements of the finances of the schools exhibit a decided improvement, especially in several which had previously been most deficient in pecuniary resources.

The schools at Macclesfield, Worcester, and Stourbridge, to which grants have but just been made, are of the most recent foundation. Macclesfield has a large manufacture of silk goods in the figured style, and it is supposed that the school there will prove of essential advantage to it. The claims of Worcester are founded on the number of porcelain and ornamental tile manufactures and iron foundries, with which it abounds. Applications for the establishment of a school have been received from Dundee, the seat of an increasing manufacture of coloured fabrics and of ornamental matting; and from Dewsbury, the centre of a large carpet and drugget manufacture. The claims of these towns have been favourably received by the Board of Trade, but there seems to be a want of local co-operation.

Some curious facts are to be found adduced in the reports from each of the schools throughout the kingdom. Thus at Coventry, the influence of the institution has been so far acknowledged by those engaged in the trade of the town, that designs for those manufactures for which none but French designs were formerly resorted to are made by the pupils. At Norwich, the connexion between the pupils and manufacturers has been on the increase, and two of the former had been engaged upon the shawl trade. At Nottingham, not only are the effects of the school felt in the adoption of its patterns for lace, but the reputation and influence of the institution is spreading to distant quarters; applications, amongst others, coming in for designs for veils, flounces, chemisettes, and handkerchiefs for the Honiton trade. It is in Nottingham especially that the manufacturers seem most alive to the value of the school, which they make great exertions to support and encourage. The schools of the Potteries, Hanley and Stoke, have also now considerable influence over the manufactures of the district,—the artists and artisans employed in the manufactories being the great majority of them students. At Sheffield, within four months, fourteen applications were made by manufacturers for the services of pupils of the school, who in several instances have been able at once to obtain wages as apprentices. In Spitalfields the same remark may be applied. Seventy of the pupils are actually employed by manufacturers; but the unwholesomeness of the school premises is considered a great bar to future progress.

At Glasgow, the strange fact comes to our notice that manufacturers frequently object to take pupils from the school, on the ground that they draw too well, and claim consequently a higher rate of wages at too early a period of their engagement. Many are, however, already employed in the manufactories of the city.

After such statements as the above as to the state of Design and Ornamental Art in England, we think it may be affirmed that the experiment involved in the establishment of Schools of Design has been upon the whole successful, and is deserving of continued support and encouragement.

STEAM SUPERSEDED. — The "New York Herald" announces that "Messrs. Perine, Paterson, and Stack are constructing a vessel, called, after the inventor, the *Ericsson*, of 2200 tons burthen, which will be fitted with an 'Ericsson' caloric-engine, the first ever placed on board a vessel. This kind of engine is worked by hot air instead of steam, and is said to be far less expensive in working, and to take up less room than those ordinarily employed." Another American paper announces an electro-magnetic engine that is to supersede steam. "Hundreds of visitors," it states, "have witnessed the operation of this engine, the invention of J. S. Gusten, of Trenton, New Jersey, a thing so simple, that the wonder is that its invention has been left until now for Professor Gusten to bring out, and at the same time so successful that no room is left for doubt that electricity as a motor has a practical value. The distinctive feature in this engine from all others heretofore made is, that the great force of attraction in the electro-magnet, with the armature in close proximity, is continued through any required length of stroke, exerting nearly an equal force at all points in the revolution of the crank, enabling the operator to start it as readily, and reverse its motion with the same ease and certainty that is obtained in the steam-engine."

PRIZE ESSAY IN CONNECTION WITH THE GREAT EXHIBITION. — Mr. B. Oliveira has offered a premium of fifty guineas for an essay on Portugal, in connection with the objects of the Great Exhibition, embracing, amongst other points, the capabilities of Portugal for consuming the manufactures of Great Britain; the effect of the present high duties on the wines of Portugal imported into Great Britain; the effect of railroads in the kingdom of Portugal as means of developing the resources of the country, &c.

* Reports and Documents exhibiting the State and Progress of the Head and Branch Schools of Design in the Year 1850-51. Printed for both Houses of Parliament, by command of her Majesty.

MAY 15, 1852.

The People's Illustrated Journal.

THE ROYAL ACADEMY AND THE ARTS.

THE Royal Academy, who give a grand banquet to the patrons of Art every year, on the Saturday preceding the opening of the Exhibition, were very nearly burning the house down on the 1st of May, 1852. The following is the statement of the accident given in the daily papers:—

About mid-day on Saturday a very alarming accident, which might have been attended with the most disastrous consequences, occurred in the apartments occupied by the Royal Academy in the National Gallery. It appears that among the preparations for the banquet that evening, was the arrangement of a large number of gas jets near the roof of the saloon where the dinner took place. Beneath these jets a large sheet of strained canvas was extended, in order to shut out the glare from the pictures on the walls. The man in charge of the gas was in the act of testing its action, when a small quantity of ignited spirit of wine fell upon the canvas, and in an instant the whole was in a blaze. Happily the fragile sheet of canvas was soon consumed, and, beyond the mischief occasioned by a destruction of the table-cloths, and a part of the dinner paraphernalia where the fire fell, no damage happened.

We really tremble as we contemplate the narrow escape which our National Gallery—to say nothing of the works of modern artists—had of perishing by this stupid incident of an altogether stupid proceeding; and we hope that it may lead, either to the giving up of the annual feed altogether, or to its being held in a tavern, like those of other public companies, charities, &c. It has too long been the reproach of John Bull that he cannot do anything great or good without a guzzle; and, though heavy and half-cold meats and hot jerry may be found wonderfully seductive of guineas at the Freemasons' Tavern,—and though in the good old days of hard drinking, it may have been necessary for Art to condescend to regale patrons with potations of strong port,—we submit that the time has arrived when the experiment might be tried of saving off an entertainment so Gothic and barbarous in intention, and little edifying in its details. Sure we are that all true artists, and any one else imbued with the spirit of Art, must look upon this annual banquet as an act at once of waste and desecration;—waste of valuable resources which might be usefully employed in fostering the decayed artist, or his fatherless children and widow,—desecration of Art itself, whose latest triumphs are steeped in the fumes of soup, wine, and made-dishes, before even the public eye is allowed to rest upon them.

Until very lately, the Royal Academy dinner used to be a strictly private affair,—the self-elected "aristocracy of Art" affecting to hold in small consideration public opinion, and its organ the press. But on the two last occasions, as a great stretch of condescension, the presence of a reporter has been tolerated, and the said reporter, out of gratitude for so high a favour, has industriously produced to the reading public two columns and a half of the speeches delivered on each august occasion,—being, indeed, the sorriest mass of commonplace ever heard at a City charity or vestry dinner. The compiler of some future History of the Arts in England will read with interest, in the record of this intellectual banquet, how "the dinner was provided by Mr. Willis, of St. James's Street,"—how the musical department was strengthened with the talent of Mr. So-and-So,—how the Duke of Wellington returned thanks for the army and navy, in the usual phraseology about England, and every man doing his duty, not omitting a passing reference to his birthday, which the day happened to be; and will admire the anxious watchfulness of the narrator, who closes his account of the gallant Duke's display of oratory with the following curiously minute particulars of his subsequent proceedings:—

His Grace resumed his place amid cheers and prolonged murmurs of applause. He withdrew in a few moments afterwards, during the glee "Discord! dire Sister of the Slaughtering Power," to honour Miss Burdett Coutts with his presence, as has been his wont on his birthday for several years back.

There is something very graphic also in the wind-up of the whole affair, as given by this conscientious historian:—

The President then left the chair, and in a few moments the brilliant assemblage was broken up and resolved into an animated crowd intent on the cares of hats, great coats, and carriages, and betweenwhiles exchanging compliments on the events of such a delightful evening.

As for the speeches, there was absolutely nothing in them relating to Art, except an intimation of an intention to provide a new and larger and more commodious building for the Royal Academy,—“a job” against which we must at once protest. This exclusive society is already treated with too much consideration by the Government, at the expense of the public, for whom it does absolutely nothing in return; and if we give them a larger house for their picture-show, we shall only be increasing the number of shillings to be wrung from the pocket of John Bull, and perpetuating a monopoly which every lover of Art, and especially every artist of independent feeling, wishes to see abolished. There is yet time to agitate this question, and, as we hope, successfully; for, from the observations made by Lord John Russell on the subject, it appears very clear that the concoctors of the scheme have not yet been able to make up their minds even upon the selection of a site:—

No one knows better than the President himself (said the noble ex-Premier), that we were, as all Governments will be, afraid of taking the responsibility of fixing on a site for the building. We knew, if it were placed in the middle of the town, we should be told the pictures would be spoiled by the smoke, and dust, and crowds of idle boys (laughter); and that if it were placed at some distance from the city, we should be told we were putting them where the people could not reach them, and the objects of Art would be beyond their power to visit. In this difficulty we called on you to fix a site, and a commission was appointed, but neither the Government nor the commission, as it happened, assisted each other in fixing on the new site (laughter), and so nothing was done. It is a difficult matter to give satisfaction in such a case, and it will take time to decide upon the best course, but I hope we may at last be successful.

In this dilemma, we leave the question for the present,—still insisting upon the policy of establishing a Free Exhibition of living as well as of ancient Art, as set forth in our last number, and of leaving all exclusive money-taking institutions to the full enjoyment of the self-supporting principle.

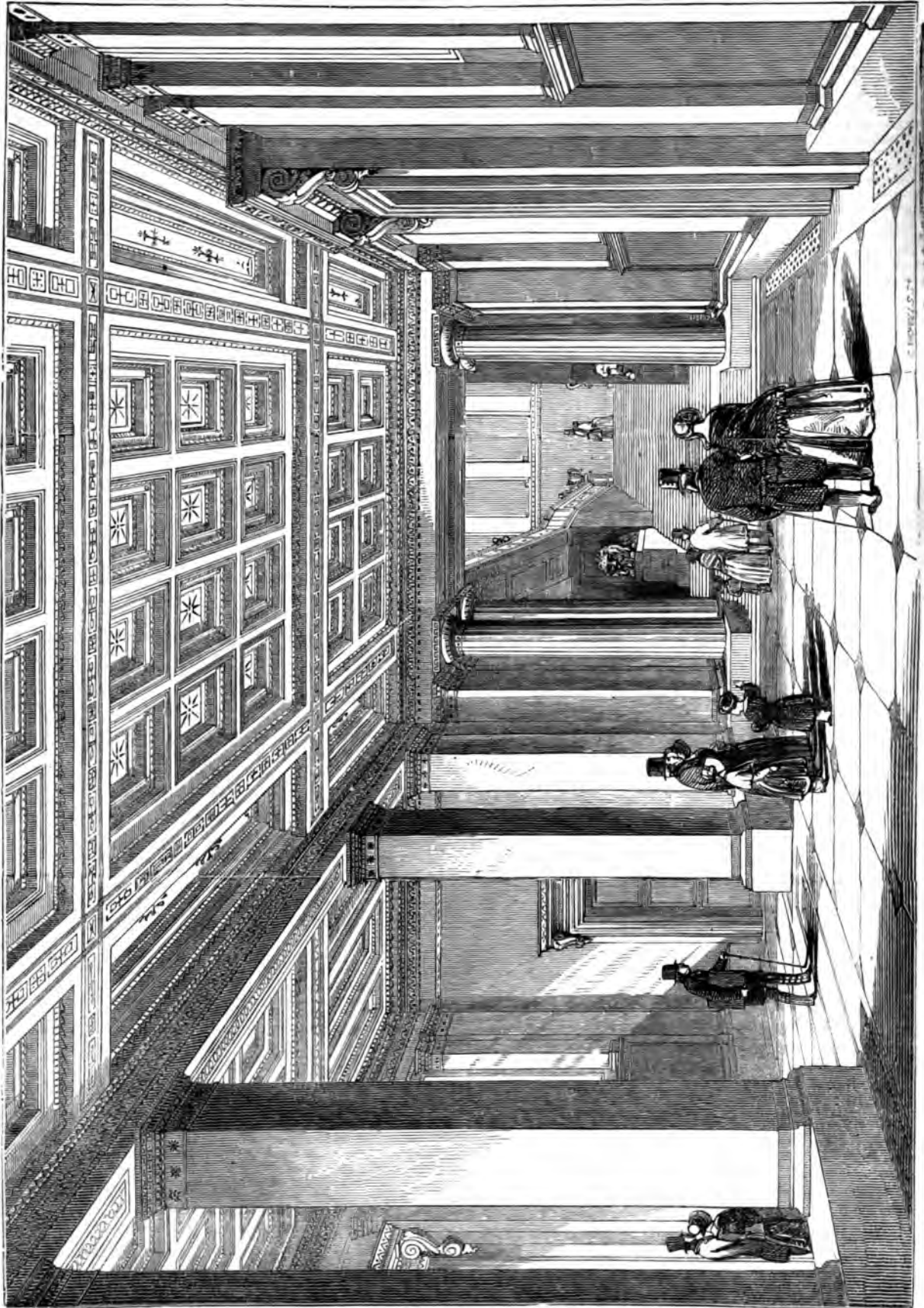
This year's display of Art at the Academy rooms is remarkable for a declining industry on the part of Academicians,—Sir C. Eastlake and Sir E. Landseer being wholly absent, and Macleise and several others having only one work each,—and the increased assiduity of the “pre-Raphaelite” party, who come out in greater strength, and with greater number and variety of works, than ever. It has been the fashion to laugh at these painstaking artists; but we agree with the critic in the “Illustrated London News,” that it is not a time to laugh at anything that evidences earnestness of intention, combined with zeal in the carrying out. After alluding to the absence of familiar names, he writes:—

On the other hand, the multitude of independent artists have come in in fuller force than ever; and, whilst the Academy seems to have abandoned its province as a school, there are those who threaten to introduce a school of their own, which, if it succeed, will displace many laurels, and despoil of fame and authority many who are now in high place. We allude, of course, to the small knot of “Pre-Raphaelites,” as they are termed by many who do not fully understand what is implied in the term; who, whilst they this year marshal in greater numbers than ever, have also managed to dismiss some of the wilder points of eccentricity which laid them open to ridicule on former occasions. As it is, they have certainly much to get rid of, and much naturalness to embody with their painstaking art; but for all this, let us not be too lavish with our jibes against Pre-Raphaelitism, nor, indeed, presume to say that there is anything so excellent in the “school” of the present day, that it may not be improved by a diligent search after other models and principles. Though it is undoubtedly true that Art arrived at its culminating point of excellence in the day of Raphael's prime, it is also a melancholy fact that its decadence in the three centuries which have elapsed since, has been much greater in degree than its rapid advance in the century preceding that great master; and that at the present time we wholly lack power and principles of action in essentials of Art, which Raphael's predecessors were possessed of, though it remained for him to combine them all, and to add to them his own ineffable grace of treatment. In oneness of purpose, simplicity of design, and breadth and intensity of colouring, the “Pre-Raphaelites,” Masaccio, Fra Filippo Lippi, Signorelli, Andrea Mantegna, and others, accomplished all that honest Art could do, and have left models which we might be well proud to imitate. Raphael added a grace which raised the artist above his subject, and created a new taste for Art, which very soon required to be gratified with new and still newer devices, in struggling after which Art itself degenerated. In one respect alone the school anterior to Raphael was remarkable for its simplicity, and that was in the lighting of a picture. But one light was then known or thought of—the broad natural light of day falling on the plane of the picture, as upon an actual group. The discovery of the principles of chiaroscuro, and the introduction of arbitrary lights, and their disposal through various planes of the picture, whilst it gave increased resources to the artist, also laid him open to increased temptations for stolen triumphs, in the procuration of which the natural powers of Art have been frittered away. We make these observations in no spirit of partisanship, nor in any ignorance of the many points of weakness and downright absurdity which are remarkable in the “Pre-Raphaelite” school of the present day. We would merely disabuse artists of the no-school-at-all of the notion that they can suppress that school by means of ridicule; or that when the strong points of that school are matured in association with truthful feeling now often wanting, mere unschooled efforts, in which there is too often neither purpose in design nor principle in colouring, can stand in competition with it for a single moment.

THE BRITISH MUSEUM.—HISTORICAL INTRODUCTION.

BEFORE proceeding to describe this interesting and truly great national edifice, now brought to completion, and whose doors were thrown open to the public on the 10th instant, it may be interesting to take a rapid glance at the origin and early history of so valuable an institution.

Strange at it may sound to our ears in this age of Museums, Mechanics' Institutions, Public Libraries, Schools of Design, and instructive exhibitions of so many sorts, one hundred years ago there was not a single institution of the kind open to the public in the whole



THE GRAND STAIRCASE.



BRITISH MUSEUM--FRONT VIEW.



THE EGYPTIAN GALLERY.

wide range of the British Metropolis. And as it is, the great national collection of antiquities, specimens in minerals and natural history, books, prints, &c., had its origin in the patriotic suggestion of an individual, Sir Hans Sloane, who dying in 1752, by his will directed that his Museum, which had cost him 50,000*l.*, should be offered to the nation for the sum of 20,000*l.*, on condition that Parliament purchased a house sufficiently commodious for it. The proposal was accepted, and Montague House* (built by P. Paget, a French architect,) was purchased of the Earl of Halifax for 10,250*l.* The Harleian MSS., and the Cottonian and other collections of books were shortly afterwards added, the necessary funds being raised by a lottery, and the Museum first opened to the public on the 15th January, 1759. Subsequent additions, partly by gift and partly by purchase, have swelled the collections of books, sculptures, and valuable curiosities of all descriptions, to an extent in some sort worthy of a great and intelligent nation. Amongst other bequests were, by Major Edwards (1738), a collection of books and the interest of 7000*l.*, to the trustees of the Cotton Library; by George II., the Royal Library, collected by successive kings, from Henry VII. to William III.; by George III., amongst other matters, a numerous collection of pamphlets published at that interesting period from 1640 to 1690; by David Garrick, a collection of old plays; by the Rev. C. Cracherode, books, prints, &c., valued at 100,000*l.*; by Payne Knight, books, bronzes, and drawings; by Sir Joseph Banks, books and botanical specimens; by George IV. (1821), the extensive and valuable library formed by his father, George III.; by the Right Hon. Thomas Grenville (1846), a library of 20,000 volumes, which had cost about 54,000*l.* The principal purchases of entire collections have been—in 1772, Sir William Hamilton's collection of antiquities, 8400*l.*; 1805, the Townley Marbles and *terra cottas*, 28,200*l.*; the Phigaleian Marbles, 19,000*l.*; the Elgin Marbles, 35,000*l.*; the Burney MSS., 13,000*l.*; and the Lansdowne MSS. and Arundel MSS., about 8000*l.* The library now contains about 500,000 volumes.

As the various collections increased in bulk and importance, the old Montague House was found to be no longer spacious enough, nor conveniently disposed for the purpose of their display, and a new Museum, upon a larger scale, was commenced in 1823, from the designs of Sir R. Smirke, the portico of which was completed April, 1847.

What follows, with reference to the progress of this building, and the vexatious and illiberal regulations established as to visitors in the early times of the Museum, is from a very agreeable, useful, and opportune publication, in one pocket volume, "How to see the British Museum, in Four Visits," by W. Blanchard Jerrold:—

"Sir Robert Smirke, the architect of the present structure, has certainly had good cause to complain of the niggardly supplies voted from time to time for the building, which has been twenty-eight years in progress. The regulations for the admission of the public have fairly kept pace with the progress of those liberal ideas to which the collection is greatly indebted, and of which it is a monument. It will be interesting for the visitor of to-day, to contrast the rules by which he is admitted, with those that fettered his ancestors of the eighteenth century. In the year 1759, the trustees of this institution published their 'Statutes and Rules relating to the Inspection and Use of the British Museum.' This instructive document may now serve to illustrate the darkness from which, even now, we are struggling. Those visitors who now consider it rather an affront to be required to give up their cane or umbrella at the entrance to our museums and galleries, will be astonished to learn, that in the early days of the Museum, those persons who wished to inspect the national collection, were required to make previous application to the porter, in writing, stating their names, condition, and places of abode, as also the day and hour at which they desired to be admitted. Their applications were written down in a register, which was submitted every evening to the librarian or secretary in attendance. If this official, judging from the condition and ostensible character of an applicant, deemed him eligible for admittance, he directed the porter to give him a ticket on the following day. Thus the candidate for admission was compelled to make two visits, before he could learn whether it was the gracious will of a librarian or secretary that he should be allowed the privilege of inspecting Sir Hans Sloane's curiosities. If successful, his trouble did not end when he obtained the ticket; for it was provided by the trustees that no more than ten tickets should be given out for each hour of admittance. Accordingly, every morning on which the Museum was accessible, the porter received a company of ten ticket-holders at nine o'clock, ushered them into a waiting-room 'till the hour of seeing the Museum had come,' to quote the words of the trustees. This party was divided into two groups of five persons, one being placed under the direction of the under-librarian, and the other under that of the assistant in each department. Thus attended, the companies traversed the galleries; and, on a signal being given by the tinkling of a bell, they passed from one department of the collection into another;—an hour being the utmost time allowed for the inspection of one department. This system calls to mind the dragooning practised in Westminster Abbey, under the command of the gallant vergers, to the annoyance of leisurely visitors, and of ardent but not active archaeologists. Sometimes, when public curiosity was particularly excited, the number of respectable applicants for admission to the Museum exceeded the limit of the prescribed issue. In these cases, tickets were given for remote days; and thus, at times, when the lists were heavy, it must have been impossible for a passing visitor in

* We shall give an Engraving of this (in England) almost unique specimen of a peculiar French School of Architecture, in a future Number.

London to get within the gateway of Montague House. In these old regulations the trustees provided also, that when any person, having obtained tickets, was prevented from making use of them at the appointed time, he was to send them back to the porter, in order 'that other persons wanting to see the Museum might not be excluded.' Three hours was the limit of the time any company might spend in the Museum; and those who were so unreasonable or inquisitive as to be desirous of visiting the Museum more than once, might apply for tickets a second time 'provided that no person had tickets at the same time for more than one.' The names of those persons who, in the course of a visit, wilfully transgressed any of the rules laid down by the trustees, were written in a register, and the porter was directed not to issue tickets to them again. These mean precautions of the last century, contrast happily with the enlightened liberty of this. Crowds of all ranks and conditions besiege the doors of the British Museum, especially in holiday times, yet the skeleton of the elephant is spotless, and the bottled rattle-snakes continue to pickle in peace. The Elgin Marbles have suffered no abatement of their marvellous beauties; and the coat of the cameleopard is without a blemish. The Yorkshireman has his unrestrained stare at Sesostris; the undertaker spends his holiday over the mummies, and no official suppresses his professional objections to the coffins. The weaver observes the looms of the olden time: the soldier compares the Indian's blunt instrument with his own keen and deadly bayonet. The poor needlewoman enjoys her laugh at the rude sewing-instruments of barbarous tribes: the stone-mason, perhaps, compares his tombs with the sarcophagi of ancient masters. No attendant is deputed to dog the heels of five visitors and to watch them with the cold eye of a gaoler; no bell warns the company from one spot to another: all is open—free!"

GENERAL PLAN AND ARRANGEMENT OF THE NEW BUILDING.

Looking at the ground plan from the line representing the railing in Great Russell-street, we have first of all, right and left of us and running north and south, two ranges of building, which are connected with the principal structure by lower ranges of building, receding from the front area, and containing the offices of the secretary and others who superintend the various departments of the Museum. Those buildings at the sides are the residences of the officers, and are not accessible to the public. They are in a manner detached from the Museum, forming scarcely a part of the architectural design, and entering not very favourably into the composition. In front of the spectator is the south front of the main building, in the centre of which is a grand portico, opening into the great hall or vestibule. In the projecting wing on the right or east side of the principal front are rooms for the preservation of manuscripts. In the left or west wings are rooms for the meetings and accommodation of the trustees.

On the west side of the hall there is a door leading to the Sculpture Room and the Antiquities: on the east is the entrance to the collection called the Grenville Library. The glass door in the centre of the hall, opposite the south entrance, leads into the great quadrangle, which is formed by the four sides of the building. The quadrangle thus enclosed is 317 feet long, by 238 feet wide. Each side of which presents an architectural *façade* of some elegance. Three sides of the quadrangle are seen to advantage from the hall, and the effect is good. This hall or vestibule itself, is unquestionably an apartment of grand proportions. It is both lofty and spacious; but the character of the order of architecture chosen, the Doric, is not quite in unison with the richness of the coloured decorations. The ceiling is covered with encaustic paintings, coffered or sunk into square compartments. On either side of the door on the east side, leading to the Manuscript Rooms are two statues—one, that of Shakspeare, the other, that of Sir Joseph Banks. On the opposite side is a statue of the Hon. Mrs. Damer, a lady distinguished for her accomplishments and skill in the Fine Arts, especially sculpture. On the west side, also, is the Grand Staircase, an object which, by its grand proportions, and graceful ascent, strikes every visitor with surprise and admiration. At the summit is a spacious landing-place, from which branch off the different suites of rooms in the upper story. The balustrades are rich and elegant, the walls decorated with taste, and the encaustic painting of the ceiling in the richest style of classicism.

On the east side of the building, and occupying nearly the whole, is the Royal Library, a noble apartment, three hundred feet in length, and containing George III.'s collection of books, presented to the public by his successor, George IV. On the west side, the principal divisions of the ground floor, are the Townley Gallery, the inestimable collections of sculpture, known as the Egyptian, the Elgin, those from Nineveh, and Lycia, and the Phigaleian. On the north side, that which is nearest to Montague-place, the entire ground floor is occupied with the Reading Rooms, and the collections of books and prints. There is one room for engravings at the western end of this side, to which visitors are only admitted upon special application. Here, also, are some apartments for the accommodation of officers.

Let us now ascend the Grand Staircase from the vestibule on the south side. At the south end of the landing, and directly over the passage on the ground floor, leading to the Sculpture Room, is the Ethnographical or Antiquarian Room. Immediately over the entrance hall, and at the head of the stairs, is the first of the Zoological Rooms, there being two others beyond it towards the east. The room

led to the collec-
of Mammalia oc-
s of the south-east
of this story, and
it, along the east-
side of the build-
extends a suite of
s which present a
ificent *coup d'œil*,
iewed from this
although it must
nfessed that there
much reason for
omplaint, that the
ee of the ceilings
ges the effect
form the eastern
gical Gallery, and
d the whole length
is side from south
orth. The upper
of the northern
that next to Mon-
place) is occupied
double range of
ies, which run side
le along its entire
l. One of these is
rthern Zoological
y, and the other
the Mineralogical
y, is devoted to a
rich and well
ed collection of
als, which is every day increasing in amount and value, and consequently
portance to the general interests of science and the arts. The west side
s story is laid out in apartments for the preservation and exhibition of
ian, Etruscan, and Indian Antiquities.



MITHRAS.

apex of the pediment
is to be placed a statue
of Britannia, in the ac-
cepted posture, and
with all the usual attri-
butes except the lion.
In the tympanum there
are sculptures by Sir
R. Westmacott, illustra-
tive of the progress of
civilisation, which, as
we shall give an en-
graving of it on an
early occasion, we shall
not further speak of at
present.

SCULPTURE IN THE TOWNLEY GALLERY.

We wind up our first
notice of the British
Museum with illustra-
tions of works in the
Townley Gallery,—so
named after Charles
Townley, Esq., who
founded it at the latter
end of the last century,
but to whose original
collection many valu-
able additions have
since been made.

To commence with
the spirited group of

ARCHITECTURE OF THE EXTERIOR.

The architecture of the
exterior is Ionic, in the strict
severity of Templar Greek;
but we can scarcely say that
the famous grace and beauty
of the style are very promi-
nently marked in Sir Robert
Smirke's adaptation. It
would, however, be impos-
sible to fail of producing an
imposing effect, by any ar-
rangement, if not absolutely
barbarous, of so extensive a
columnar mass as is pre-
sented upon the south front
in Great Russell-street. This
consists of a portico of noble
dimensions, being an octo-
style, with two columns be-
tween, at the ends, which
lead off into a peristyle, upon
the two short wings of the
centre, and two projecting
wings, which with the centre
form three sides of a quad-
rangle. The portion of the
peristyle carried round either
front of the projecting sides,
forms a hexastyle portico,
but without a pediment, an
omission which certainly
takes much from elegance of
effect in the whole *façade*,
and serves with the severity
of the general details to give
the building an air of baldness
and incompleteness. The
pediment of the centre is
rather low, for the height
and extent of the portico,
but the reduction of its ele-
vation would seem to have
been necessary, in conse-
quence of the absence of
pediments over the lateral
porticoes, as one of grander
proportions, would by com-
parison have aggravated their
poverty of effect. Upon the

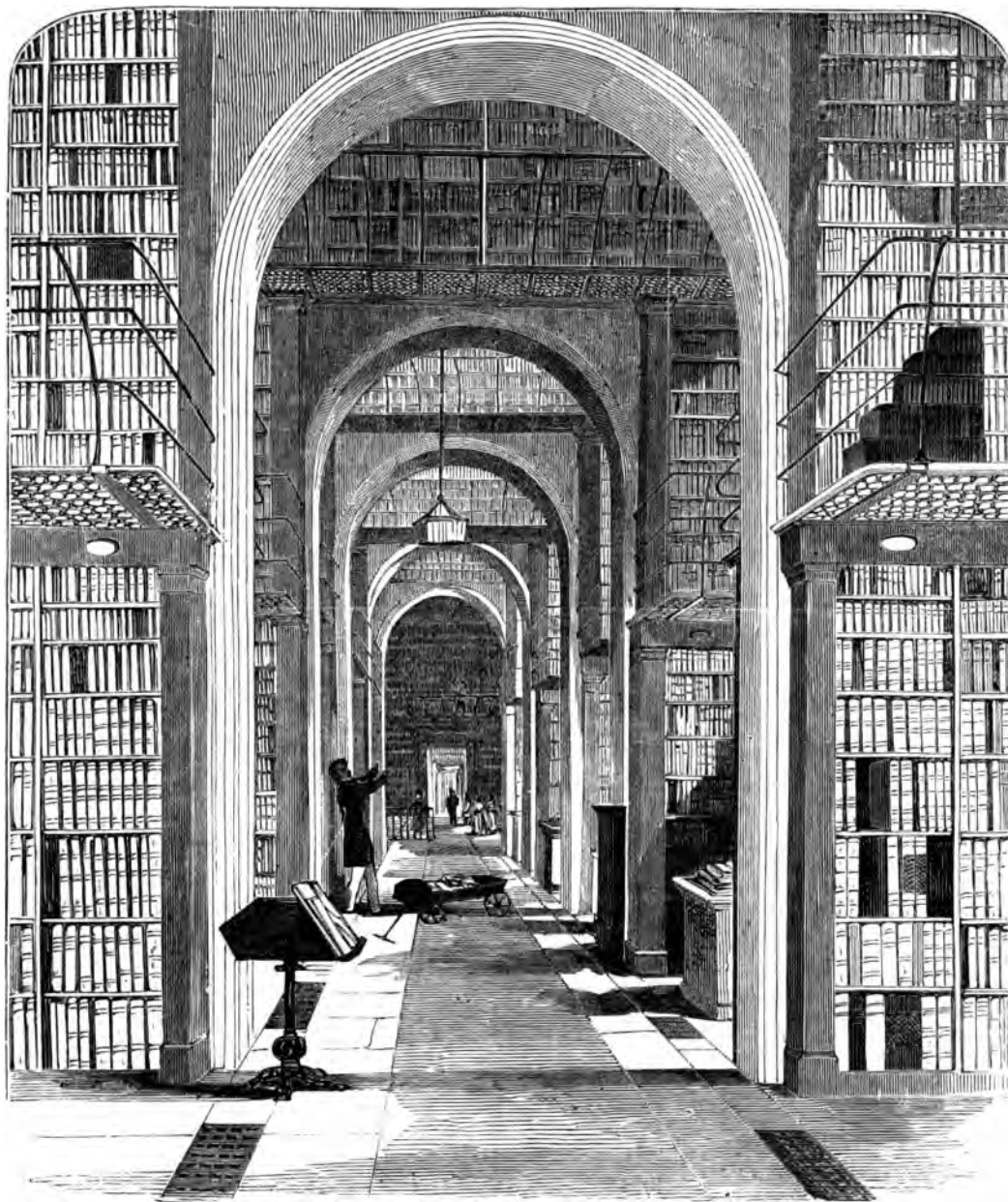
THALIA, IN THE TOWNLEY
GALLERY.

THE RONDININI FAUN, IN THE TOWNLEY GALLERY.

'Mithras and the Bull,' which is found on the left as you enter the first room of the sculpture department, and facing the Egyptian Hall :—

Mithras was the name which the Persians gave to the sun. The group here placed before the reader shows the form in which the Romans represented that deity after the soldiers of Pompey had conquered the Cilician pirates, by whom the worship of Mithras had been introduced from Persia, and from whom the Romans adopted it. Mithras appears as a young man who has seized a bull, and forced him to the ground. On his head he wears the Persian cap or tiara, and is

clothed in a tunic, above which a cloak, fastened on the shoulder, floats in the air. His left knee presses on the body of the animal, whilst the right foot, which is stretched out, confines the hoof of one of the bull's hinder legs. His left hand holds the bull by the nostrils, and with the right hand he strikes a dagger deep into the shoulder. A dog and a serpent raise themselves to lick the blood which trickles from the wound; whilst a scorpion is fastening upon the bull beneath. There seems little doubt but that the allegory veiled under this representation is astronomical, illustrative of the sun's annual course. The figure of



THE LIBRARY—THE ARCHED GALLERY.

Mithras is supposed to represent the sun in its full power; the bull as typifying the earth and moon, the former by its use in agriculture, the latter by its horns, which form a crescent; the dagger showing the influence of the sun upon the earth, opening its veins and causing fertility. D'Hancarville considers the dog and serpent as emblematical of animated nature generally. The scorpion is supposed to typify the decline of nature's productive power; the season when vegetation slackens. Macrobius says, "in Scorpione Solis natura torpescit." The present group was brought from Rome in 1815 by Charles Standish, Esq., from whom it was purchased by the trustees of the British Museum, in 1826, for the sum of 300*l*. Its dimensions are,—length, four feet ten inches; height of Mithras, four feet four inches.

Thalia is known both as the pastoral and comic Muse, whose province it was to preside over the delineation of men and manners. This beautiful statue is five feet seven inches high, standing upon a plinth three inches high. It represents the Muse clothed in a full drapery, but of so thin a texture in the under-dress as to leave the various forms

of the person visible beneath it; whilst the peplum, cloak, or outer garment, the folds of which are in a stronger style, having fallen behind the shoulders, is supported in front by the left hand and arm. The right hand holds the pedum or pastoral staff, the crook of which rests upon the hip. The girdle which passes first over the shoulders is fastened close beneath the bosom.* Upon the head is a chaplet of ivy, and sandals are on the feet. The chaplet of ivy, generally seen on the head of this Muse, was the usual reward of poetic merit. The pedum, according to Hesychius, was an emblem of Comedy, as also one of the usual attributes of Thalia. The pedum, as well as the arm which holds

* The vest of females was anciently fastened by two bandages (or girdles). One which was tied close under the breasts, sometimes flat and broad, and at others twisted, but usually visible, was called *tania* (*τανια*). The other was placed round the lower part of the waist, at the junction of the hips, and was always concealed by the falling of the tunic. It was called *zona* (*ζώνη*). "Zonam solvere," used by Catullus, is a well-known phrase. The *cestus* of Venus was the zone. Dallaway, Anecdotes of the Arts, p. 251, note.

it, in this statue, are modern; but as the place where the crook anciently rested is discernible upon the figure, there can be no doubt of the correctness of the restoration. This statue was found by Mr. Gavin Hamilton in the year 1776, in the maritime baths of the Emperor Claudius, in company with the beautiful statue of the Matron Venus.

The Rondinini Faun,—so called because it formed for a long period one of the most remarkable objects in the collection of the Rondinini Palace in the Corso at Rome. This statue, is said, some years ago, to have been sold by the Marchese Rondinini to an English nobleman, but that the influence of Canova was at that time successfully exerted to prevent its exportation from Italy. The sculptor being dead, and the Marchese become minister of police, permission for the removal of this statue was given. It was brought to England in the month of February, 1826, by Thomas Shew, Esq., of Grosvenor Place, Bath, and was purchased in the same year for the British Museum at the price of 300*l*. The Faun is represented playing on the cymbals. A pedum lies upon the plinth. Height, to the upper part of the cymbal in the left hand, six feet ten inches.

THE ROOKERIES OF LONDON.*

OF all the evils in our social condition, the statistical necessity that exists for an average amount of surplus labour in the industrial markets of London and Paris, is the most oppressive to the philanthropic mind; which would, indeed, sink altogether under the load, if it believed it to be inevitable and unalterable. Instinctively, however, it feels that it is neither the one nor the other; but the result of that deficiency of political vigilance in relation to the wants of the industrial classes, which until lately had prevailed for more



THE LAST OF FIELD LANE.

than two centuries, but against which modern benevolence has borne testimony with an ardour and activity that promises at least, a gradual, if not an immediate redress of many grievances. Indeed, social questions, have, for some time past, taken the place of political ones; and, at present, may be said to engage the attention of all the governments of Europe, which are more or less occupied in discovering some solution for an evil which manifestly threatens their stability. The cry of the poor will be heard, and cannot with safety be at any time neglected.

This surplus labour, and some labour, too, which is in actual employment, are represented by a large number of squalid individuals who inhabit courts, alleys, and out-of-the-way places, in proximity with the most respectable neighbourhoods, forming the dark background of society, and the very nucleus of disease and depravity.

In the work before us, the records of the personal inspection of a respectable and diligent clergyman, such miserable dwellings are called "the Rookeries of London." And fitly are they so called; for, according to the naturalist, "a rookery is a village in the air peopled with numerous inhabitants: it is the nature of birds to associate together, and they build in numbers in the same or adjoining trees." And rookeries, adds Mr. Beames, these human dwellings are, "if rooks build high and lie thick together, young and old in one nest." In these sad abodes, "Colonies," he tells us, "are wedged up, not so much because of connection between families as by common wants and a common nature, and with the fierce discord and occasional

combats of the inhabitants. The tenants of these Rookeries, like the birds from whom they take their names, have much in common,—want, with its offspring, recklessness; they the pariahs, so to speak, of the body social, a distinct caste, yet not bound together otherwise than by common wants—with their jealousies, discords, and antipathies; as if it were not too true of them, as of others, that a man's foes may be they of his own household."

Society upon the general face of it, has much improved. The richer are better lodged than formerly;—and many of their lodgings in a former age, have become those of the poor in the present. But this inheritance of the poor is one of dilapidations; and in each single room a score of outcasts at three pence, or even three halfpence a night, are crowded together without regard to sex or age, as their common dormitory. In other districts, houses of meaner origin present yet more miserable accommodation. And thus it is that the architectural grandeur of a great city becomes merely the screen of its deformity. Monuments of an older time remain in the Rookeries of London. The close alley, the undrained court, the narrow window, the unpaved footpath, the distant pump, the typhus or Irish fever, reminds of what London once was. The Fire of London was a great purifier of the metropolis from the Rookeries that had previously infested it. It consumed 12,000 houses within the walls of the city, and above 1000 more without the walls. This was partly owing to the buildings being of timber, and the want of water; perhaps, also, to the agency of incendiaries. The houses rebuilt on the old foundations, were constructed of more substantial materials and in a better manner. The crowding of several families into one house is not an innovation of later times; but rather the revival of an obsolete practice. The proclamation of Elizabeth is, indeed, directed against such abuses of occupancy, as the "letting, or setting, or suffering any more families than one only, to be placed or to inhabit any house." The authorities, accordingly, are enjoined to prevent "the heaping up of families in the same house, or the converting of any one house into multitudes of tenements for dwelling or victualling places;" and also, "the increase of many in-dwellers, or, as they are commonly called, inmates or undersitters, contrary to the good ancient laws."

Mr. Beames calls for some interference of the sort from present governments, so that the Rookeries may be destroyed;—but he likewise requires that other and better accommodation should be provided for the same class of persons, and so regulated that they may be readily brought under the guidance of the authorities, even though the principle of personal liberty should be in some degree infringed upon. One curious circumstance is stated in regard to these rookeries, showing the natural tendency that things have to class themselves. There are, among these rookery colonies, appropriate districts for particular classes of offenders. One parish is a school for coiners, another for burglars, another for shoplifters, another for horse-stealers. Parts of the metropolis, if mapped out by a moral geologist, would present as many varieties as a district in which the surface was in one place clay, in another chalk, in another limestone, in another gravel, and so on. Among the worst districts in London, is the locality near Westminster Abbey, bounded on the north by Victoria Street, on the east by Dean's Yard, on the south by Peter Street, on the west by Stretton Grounds. More than 130 years since the materials for a Rookery began there to accumulate, and were most culpably left to organise themselves, until the district became, under the very eye of priests, senators, and judges, the chief shelter and resort of thieves and all sorts of abandoned characters.

Mr. Beames takes us into the mysteries of St. Giles's, Saffron Hill, Jacob's Island, Ratcliffe Highway, Berwick Street, district of St. James, and Pye Street, Westminster. The demoralising influences detected are terrible when depicted. Our author justly calls them cruelties against which nature revolts. The people, for instance, of Jacob's Island, live in the midst of miasmata; the brown, earthlike complexion of some, and their sunken eyes, with the dark areole around them, are due to the sulphuretted hydrogen of the atmosphere in which they live having been absorbed into the blood. Scarcely a girl that has not soreness of the eyes; so that if one of the inhabitants could be taken to a foreign hospital, and there subjected to examination, science would immediately assign the cause of the complaint under which he was suffering—would accurately describe the particular gas or vapour he had been accustomed to breathe, though the previous circumstances of the case had never been stated.

Mr. Beames very judiciously remarks that the energies of this noble country need only to be roused, and her eyes opened to the wretchedness she might well relieve. Larger resources are not wanted, but rather a better distribution of those we have. Indiscriminate relief causes more poverty than it dispels. He recommends that fellow feeling should be spread over the surface of the country, not confined to particular classes; and calls upon those who at heart are just and generous, to look into the anomalies they have often sanctioned unconsciously among their own tenants, and to do that justice to their own dependents, which the stranger, if he claimed it, would receive at their hands. Our author would deal a death-blow to begging by giving scope for honest toil, and raise men to independence by the pride which comfort gives,—by a sense that Labour earns the blessings which a father's love claims for his offspring. Fortunately, the landlords whose interests are at stake in these Rookeries, are not very many; and they should be immediately dealt with in every possible way. Repeal the abuses we have created, and

* "The Rookeries of London: Past, Present, and Prospective." By Thomas Beames, M.A., preacher and assistant of St. James, Westminster. БОЖОВИЧЪ.

nature herself will supply the wants of man. Air, light and water have been impeded by legislation and other arrangements;—the window-tax repeal has removed one of these hindrances to improvement;—others that remain should also be removed, particularly the system of middlemen, and progress would then become practicable. Economy in the expenditure of public funds likewise is required.

The haunts of pauperism are the nurseries of felons; yet we have no national scheme of emigration as a remedy; not even a scheme of home colonisation. We have, however, the project of model lodging-houses, not yet generally carried out, as it should be. Labourers also might be lodged in colonies distant ten miles from town, on the line of the railroad. Noble fields exist for ingenuity, philanthropy, and religion; but that *laissez-faire*, which our author defines as an unreadiness to act except only in great emergencies, is the bane of the English character, and the impediment to wholesome reforms. But let us hope for the advent of a better, a more humane order of things. One lesson survives all revolutions. It was the degraded condition of the labourer that made him a tool in the hands of the Anarchist;—and this is the great Social lesson which our author would enforce, and has indeed most amply illustrated.

In Field Lane (we quote our author), and the courts which run out of it, were several lurking places for thieves, lodging-houses and places of resort frequented by them; although others, whose only vice is gross intemperance, are often obliged to live in these dens, so that professional men have been known to inhabit these localities, dragged down to this lowest abyss, by their passion for drinking. Of the thieves, the greater proportion are English; for the most part, the receivers of stolen goods, the negotiators in this fearful traffic, are Jews, who with their families, reside here, and drive their nefarious trade. These thieves are often the children of honest, though drunken and debauched parents; father and mother spending their earnings, and devoting their spare time to the public house, their children have become the easy prey of the villains who lurk in the neighbourhood: soon do they learn, in thieves' training-houses, the jugglery of their trade, and apt pupils do they become. Even if they were sober, the inhabitants of Rookeries cannot take care of them,—they are too much from home; the children are allowed to run about, without any one to take care of their children, or, if even sent to school, are not quite out of the reach of temptation; and what influence must the example of a thieves' quarter have upon them all.

The City authorities, some years since, proposed to build a long street to connect Farringdon Street with Clerkenwell; after having erected a few handsome houses, obstacles were put in their way—the purchase of the houses in the line of road about to be made was not completed, and therefore the works were suspended. The open space thus formed the nucleus for an assemblage of ragged boys; near it is a Ragged School, where a hundred beds, in a large, lofty, and airy apartment, are provided for those pupils who are houseless; and baths and other comforts are attached to the establishment; and it is said that in summer, the poor often sleep under the arches which have already been erected. The proposed street, if carried out, would be a great blessing to the neighbourhood; the inhabitants would never be at rest till the back ground of wretchedness had been removed.

If this wholesale clearance answered its end, other landlords would be tempted to build better houses in the place of the present dens, courts, and alleys. It would be letting light upon Pluto's gloomy dominions; the astonished ghosts would vanish at the unexpected sight, and the spirits of pestilence, hunger, crime, and despair, betake themselves to Rookeries yet unexplored.

But Plough and Plumtree Courts, in the same parish; Harp Alley, Churchyard and Cockpit Courts, in St. Bride's; Crown Court, Hanging Sword Alley, and other worse plague spots than these, would be crowded with inmates,—room economised, rents raised to the gain of the middlemen and the ruin of the poor, unless lodging-houses were built to receive those turned out.

ARCHITECTURAL REFORM.*

I CANNOT but feel, that if the education of the Government Schools were made more architectural, much real benefit would result to this country; besides that the study of architectural forms must be the best preparation for the designer of ornament, they would do more good in helping to make architects than painters, to whom individuality is less of an evil. Architects should be educated in masses, because it is their duty to give expression to common wants and common feelings. The opposite system has been in use in this country, and has most assuredly failed. The knowledge we have acquired of the works of past ages, has been procured by individual efforts, but, unfortunately, with but small results. Each has been tempted to exaggerate the importance of the style of his predilection, and which he undertook to illustrate.

That a little knowledge is a dangerous thing has proved most true in architecture and its attendant arts.

As each new architectural publication appears, it immediately gene-

* From a lecture on "the principles which should regulate the Employment of Colour in the Decorative Arts, with a few words on the present necessity of an Architectural Education on the part of the Public," delivered by Mr. Owen Jones, on the 26th April, at the Society of Arts.

rates a mania for that particular style. When Stuart and Revett returned from Athens, and published their work on Greece, it generated a mania for Greek architecture, from which we are barely yet recovered. Taylor and Cressy did as much for the architecture of Rome. The travels of Belzoni and his successors produced the Egyptian Hall, and even Egyptian-faced railway tunnels. The celebrated French work on the architecture of Tuscany, and "Letarouilly's Modern Rome," have more recently inspired us with a desire for Italian palaces.

The works of the elder Pugin and Britton, with a host of followers, have flooded the country with Gothic buildings; with which, notwithstanding the learning and research they exhibit, I must frankly avow I have but little sympathy. I admire and appreciate the Gothic buildings,—which were the expression of the feelings of the age in which they were created, but I mourn over the loss which this age has suffered, and still continues to suffer, by so many fine minds devoting all their talents to the reproduction of a galvanised corpse.

Instead of exhausting themselves in the vain attempt, who will dare say that had these same men of genius, as they certainly are, directed their steps forward instead of backward, architecture would not have made some progress towards becoming, as it is its office, the true expression of the wants, the faculties, and the sentiments of the age in which we live?

Could the new wants be supplied, the new materials at command, the new sentiments to be expressed, find no echo to their admonitions? Alas! iron has been forged in vain,—the teachings of science disregarded,—the voice of the poet has fallen upon ears like those of the deaf adder, which move not, charm the musician never so wisely.

More than this, instead of new materials and processes suggesting to the artist new forms, more in harmony with them, he has moulded them to his own will, and made them, so to speak, accomplices of his crime. The tracery of Gothic windows, generated by the mason's art, have been reproduced in cast iron; the Doric columns of Greek temples, which owe their peculiar form and bulk to the necessities of stone, have been a hollow iron sham.

We have gone on from bad to worse: from the Gothic mania we fell into the Elizabethan,—a malady, fortunately, of shorter duration; for we then even worshipped not only a dead body, but a corrupt one.

We have had an Italian mania without an Italian sky; and we are even now threatened with the importation of a Renaissance mania from France. It would be most unfortunate if the attention which has been directed to the peculiar beauties of the East Indian collection of the Great Exhibition should result in an Indian mania; but if this disease, like measles, must come, the sooner it comes and goes the better. What we want to be convinced of is, that there is good mixed with evil in all these styles; and I trust, when each has strutted its brief hour on the stage, recording for posterity the prevailing affectation of the day, we shall. We want to be convinced that all these styles do but express the same eternal truth, but in a different language; let us retain the ideas, but discard the language in which they are expressed, and endeavour to employ our own for the same purpose. We have no more business to clothe ourselves in mediæval garments, than to shut ourselves in cloisters and talk Latin; to wrap ourselves in Indian robes than to sit all day on divans, leading a life of voluptuous contemplation.

After the expression of so much heresy, I must beg to say that the fault does not at all lie with the architectural profession, to which I esteem it an honour to belong. The fault lies with the public; the public must educate themselves on this question. Architects, unfortunately, can but obey their clients: this one will have an Elizabethan mansion; this clergyman can admit no other than a mediæval church; this club of gentlemen must be accommodated in an Italian palace; this mechanics' institute committee must be located in a Greek temple, for there alone wisdom can be found or philosophy taught; this railway director has a fancy for Moorish tunnels or Doric termini; this company, again, an Egyptian suspension-bridge—the happy union of the alpha and the omega of science; the retired merchant must spend his surplus in Chinese follies and pagodas. And, to wind up the list of these melancholy reproductions, I will cite the worst I ever saw, though, fortunately, not an English one. We have here a client, who, requiring a steam-engine for the purposes of irrigation for his garden, caused his architect to build an engine-house in facsimile of one of the beautiful mosque tombs of the caliphs of Cairo. The minaret was the chimney shaft. Nothing was omitted: even the beautiful galleries, which you all know were used for the purpose of calling the Moslem to his prayers, here surrounded a chimney without a means of access.

I again repeat, the fault lies with the public; an ignorant public will make complaisant and indolent architects. Manufacturers, again, will always tell you, in answer to a reproach for the bad designs they produce, that they are only what the public require, and will have: let us trust that this excuse will no longer avail them. The Great Exhibition has opened the eyes of the British public to our deficiencies in art; although they were unable to suggest better things, they were found quite able to appreciate them when put before them. There must be on the part of manufacturers, architects, artists, and all who in any way minister to the wants and luxuries of life, a long pull and a strong pull, and a pull altogether; they have one and all, like dramatic authors, written down to the taste of the audience, instead of trying to elevate it. The public, on the other hand, must do their part, and exercise a little pressure from without.

Correspondence.

MR. COLE, THE NEW SUPERINTENDENT OF THE SCHOOL OF DESIGN, SOMERSET HOUSE.

To the Editor of the "PEOPLE'S ILLUSTRATED JOURNAL."

SIR,—Perhaps you will allow me, through the pages of "The People's Illustrated Journal," to make a few observations on the above subject, believing, from the tenor of the liberal opinions expressed in your first Number, that you will aid in defending the rights of the people, and the public generally, against the baneful spirit of monopoly and corrupt jobbing.

It is presumed that all observant and reflecting persons would have remarked, after a careful examination of the various works exhibited in the Crystal Palace, having reference to the larger departments of design, as applied to manufactures, that, as regards accurate drawing and refinement of sentiment, our French neighbours were infinitely our superiors; and this humiliating fact being admitted, it may not be deemed out of place to enquire into the immediate cause of our great inferiority. This cause may soon be traced, as arising from the great degree of apathy which has ever been evinced by the British Government in reference to any project for a national system of education in the arts of design. Some ten or fifteen years ago, however, our legislators became at length aroused from their apathetic sleep, and were driven by a pressing necessity to adopt some plan by which we might be enabled to compete, in some degree, with our foreign neighbours, the great superiority of whose designs in manufactured art had become so very glaringly apparent. Accordingly, a central School of Design was established at Somerset House, and local ones at some of the most important provincial towns, but which, for the first few years, went on very unsatisfactorily, not necessarily owing to the incapacity of the masters, but from the great want of a properly regulated general management, and the incompetency of some of the chief superintendents, who were not thoroughly acquainted with the principles of the arts they professed to teach. After a certain period, however, a reform took place for the better, and, up to within the last few weeks, some professors of real ability and masters of acknowledged talents had the direction of the central and other schools; but to the very great surprise and disgust of all parties, very recently, Mr. Labouchere thought proper to pitchfork a certain Mr. Cole into the important situation of General Superintendent of the whole Schools, at a salary of 1000*l.* per year! Now, sir, as one of the people, and as a theoretical and practical designer, I protest, on the part of the public, including the whole of the students now pursuing their probationary labours at Somerset House, against this highly injudicious appointment. If this Mr. Cole, or, as he once called himself, Mr. Felix Summerly, were highly qualified, by a comprehensive general knowledge of the arts, and those high and dignified influences that constitute a great designer,—if he were superior to the men who are expected to work under him,—I would then immediately and strenuously defend the appointment; but when the notorious fact appears, that this said gentleman is totally and utterly incompetent to fulfil the great and responsible task which he has undertaken, besides being very unpopular with the masters, with whom he has to associate,—unpopular with the students under his control,—and equally unpopular with manufacturers both in town and country,—I trust I have cogent reasons in urging that, for his own sake, Mr. Cole should freely and immediately resign his trust into abler and better hands, in order that the dignity of the institution may be maintained with honour and integrity, and not continue, by a mistaken obstinacy, to retard the progress of the schools; for it has been admitted by the pupils themselves, that for the last few weeks scarcely anything has been done, owing to this very ill-judged appointment.

Pray, sir, what can be expected from a man who changes the title of the establishment from School of Design, to that of a "School of Practical Art?" and who contends that copying is to lead to perfection in everything? Why such a state of things is monstrous; and I argue, in opposition to such specious sophistry, that the genius of the students should remain as free and as unfettered as possible, under, however, the judicious guidance of competent and properly-qualified masters, who should watch, with great care, the development of their particular and individual bias, and then direct their energies into those particular channels in which they are most likely to excel. If Buonarrotti, Raphael, Ghiberti, Benvenuto Cellini, and other great Italian designers, had been compelled to copy, and copy their whole lives, would the great Florentine ever have produced the daring sublimity of the "Last Judgment," the majestic figure of the great Jewish Lawgiver, or have erected the cupola of St. Peter's?

or should we ever have had the cartoons of the divine Raphael, the noted gates of Florence, or the miraculous conceptions of Cellini in silver and other metals? Most assuredly not. Copying is no doubt very desirable until a knowledge of styles and a certain degree of facility of hand is acquired, but, if persisted in afterwards, it will inevitably lay the foundation of mannerism, imbecility, and degradation; and such is the system advocated by this great Professor Cole, who is to be paid 1000*l.* per year for manufacturing copyists, and fettering the students in the trammels of mediocrity of the very worst and humiliating description.

What was one of the first propositions which Mr. Cole made on his new appointment? Why it was that the subscriptions of the pupils should be raised from 2*s.* to 4*s.* per month. And pray what was the result of this noble proposition? Why the students (to their honour be it spoken) combined together, signed a paper to the effect that, if this exorbitant and unreasonable demand were persevered in and enforced, they would leave the school in a body.

Really this niggardly spirit on the part of a Government which squanders away thousands of pounds on injudicious and experimental architecture, and on public monuments that have disfigured our metropolis, and cannot be induced to vote a few thousands out of the public purse to the liberal establishment of schools for the education of youth in the principles of design, exhibits a most despicable want of dignity, and a sad want of laudable ambition, more particularly when it is so notorious that the French nation, having been so systematically trained for such a number of years, and so liberally supported by a generous and munificent Government, are, in consequence, so very much our superiors in everything in manufactured art, where a refined sentiment is required. Does it not therefore become the more necessary, for our own national dignity of character, that we should pursue a system of redoubled energy and perseverance, in order that we may overtake our more eminent neighbours, in the great race of perfection in the aesthetics of art as applied to manufactures, &c.; and this great object cannot be effectually accomplished without the liberal co-operation of Government. Genius may struggle on and accomplish much, while

"Fainting o'er its labour unapproved,"
but it will do much more when fostered and supported.
Yours, &c. J. A.

LONDON, May, 1852.

Miscellaneous Notices.

THE PARIS PANTHEON.

It seems that since the Pantheon has been restored by the President of the French Republic to the daily purposes of religious worship, the figures which adorned the front have been considered highly inappropriate. It is therefore intended to remove the *chef-d'œuvre* of David to Versailles, and get another composition put up, in which will figure on a large scale the full-length portrait of the President, or quasi-Emperor of France. Louis Napoleon will be not very appropriately surrounded by a composition in which divers episodes of St. Genevieve's life are embodied.

GEORGE STEPHENSON'S STATUE.

The Committee intrusted with the direction of the fund for erecting a testimonial to the memory of the late George Stephenson, have contracted with Mr. Bailey, the Royal Academician, for a statue ten feet high, to be executed in marble, and placed in the large room at Euston Square,—the entrance, or porch, as it were, of the great group of Northern railways of which Mr. Stephenson was the creator. The price is to be three thousand guineas.—*Athenæum*.

PHOTOGRAPHY.

Sir David Brewster has discovered that the harsh and disagreeable aspect which characterises sun portraits, especially binocular ones, when united by the stereoscope, is not attributable to the size of the lens. This error, it seems, is widely spread; and, as every photographer strives to obtain larger lenses, this very attempt to improve his art has led him to produce portraits more and more deviating from pictorial truth. The most perfect portrait that an artist could paint would be produced by the sight of one eye; but a portrait taken by a lens in a camera is a combination of a great number of portraits taken from a great number of points, and the enormous differences which exist in these, taken as they are, are well known to scientific people. It seems then that the perfection of photographic art is to be attained only by the discovery of a process so sensitive that portraits can be taken by lenses as near as possible to the size of the pupil of the eye.

A NEW PLANET.

Mr. Luther, of the observatory of Bilk, near Düsseldorf, has discovered a new planet. It is the seventeenth of its kind, being one of those numerous bodies situate between Mars and Jupiter, of which fresh discoveries are continually being made as more and more powerful instruments are used.

THE LEIPZIG BOOK FAIR.

The catalogue of the Easter Book-Fair at Leipzig contains 4527 works as published, and 1184 to be published. This is an increase of 700 volumes compared with the Michaelmas fair, and of 800 more than the last Easter fair. The number of publishers by whom the works have been brought out is 903. One house at Vienna has produced 113, and the Messieurs Brockhaus 95.

PRICES OF AUTOGRAPHS.

It is curious to watch the prices which autographs fetch, and the value set upon them in these times;—to see the sign manual of an actor more highly prized than that of a minister—that of a painter than that of a king. Some curious instances of this are to be found in the prices realised by some autographs sold a few days since by Puttick and Simpson. Three letters of Keats, 3*l.* 2*s.*; some letters of George III. and C. J. Fox, 5*l.*; autograph of Louis Philippe and his family, 4*l.* 6*s.*; autographs of Napoleon and his Generals, 23*l.*; a letter of John Wilkes, 3*l.* 3*s.*; a letter of Turner, the painter, in rhyme, 4*l.*

CAUSES OF RAILWAY ACCIDENTS.

It appears from a paper recently read at the Institute of Civil Engineers, that, in the working of the North Western Railway, burst and leaky tubes of boilers had doubled every other class of failure; these, with broken springs and broken valves, amounting to one-third of the whole number of accidents.

ON HEATING ENGINE-BOILERS BY GAS.

A paper was read, a few days ago, by Mr. J. H. Charnock, of Wakefield, before the Society for promoting Public Improvements in the borough of Leeds, in which he advocated the use of gas as fuel, in mitigation of the smoke nuisance, at the same time suggesting means of cheapening the manufacture of the gas, and pointing to the prospect of great improvements in this branch of science, and the desirableness of substituting pure hydrogen, the result of burning which would obviate all mischief either from smoke or from choke damp, nothing but mere aqueous vapour being yielded by its combustion.

RECENT PATENTS.

Mr. Illingworth, of Bradford, has lately patented improvements in the machinery employed for the preparation of wool, or hair of animals for the production of worsted or woollens. The invention includes a machine for preparing short fibrous substances, which was a desideratum.

Messrs. Miller and Peckstow, of Lancashire, have patented inventions for conveying moisture to cotton and other fibrous materials while in progress of being spun, and to yarns in progress of being doubled; and likewise inventions for conveying starch or other gummy substances to fibrous materials during the operations of spinning and doubling; and for conveying and distributing artificial heat to dry cotton and other fibrous substances after they have been moistened for spinning and doubling.

Mr. Moulton has patented an invention which consists in the discovery of a new combination of several materials, by which a new compound is produced. The chief object attained by this invention is a "cured gutta percha, possessing the quality of elasticity, unaffected by change of temperature, and resisting the solvents of the native gum."

NEW DISEASE IN LAMBS.

We (the "Economist,") referred a few weeks ago to the appearance of a novel and severe disease amongst the lambs on two farms in Hertfordshire, where lambs have been attacked by lameness, swellings of the joints, accompanied by debility, and soon terminating in death. On both these farms turnips are more successfully grown, and to a larger extent than on most farms in the county; and the ewes have, for the most part, been kept wholly on turnips throughout the winter. Is it possible that this may have created a tendency in their offspring to liver disease? which has been suggested as the origin of a similar disease north of the Tweed by a correspondent of the "North British Agriculturist," who describes a disease amongst Leicester lambs on a Scotch farm, the symptoms of which are very similar to that we have mentioned. This subject deserves professional examination,—for should the disease prevail more extensively another year, it may become a serious calamity. The account we have since received of some of the Hertfordshire lambs, which were opened by the shepherd, is that "they were all full of matter."



DESIGNED BY A. FRIPP.]

THE OUTCAST.

[ENGRAVED BY T. WILLIAMS.

O do not bid me take my way
O'er yonder harvest field,
To join the throng of gleaners gay,
As though my heart was steeled;
For dancing feet are on the sward,
And tunes are in the air,
Whose merry measures distant heard,
Are more than I can bear!

You cannot think how much it tells,
The smoke o'er yonder tree;
Though now beneath the elm there dwells
No creature dear to me.
My mother's phantom haunts the place,
My father's silver hair;
And both are dead of my disgrace,—
'Tis more than I can bear!

I prayed last evening where they sleep:
Yet did my coming know,
For awful voices seemed to creep
The churchyard moss below;
And, with my baby at my breast,
They bade me, both, despair,
Like one who ne'er again may rest,—
'Tis more than I can bear!

O baby! turn a living face
And cry a living cry;
And tear thy mother from this place
Since here she cannot die.
That thou and I, o'er mount and sea,
May hide—no matter where—
So none can tell the shame to thee,
My soul must ever bear!

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SATURDAY, MAY 22, 1852.

PRICE TWOPENCE.

THE BRITISH MUSEUM.*

THE PEDIMENT.

THE tympanum of the pediment of the portico of the new British Museum is filled with groups of sculpture, designed and executed by Sir Richard Westmacott. The groups are intended to represent the progress of civilisa-

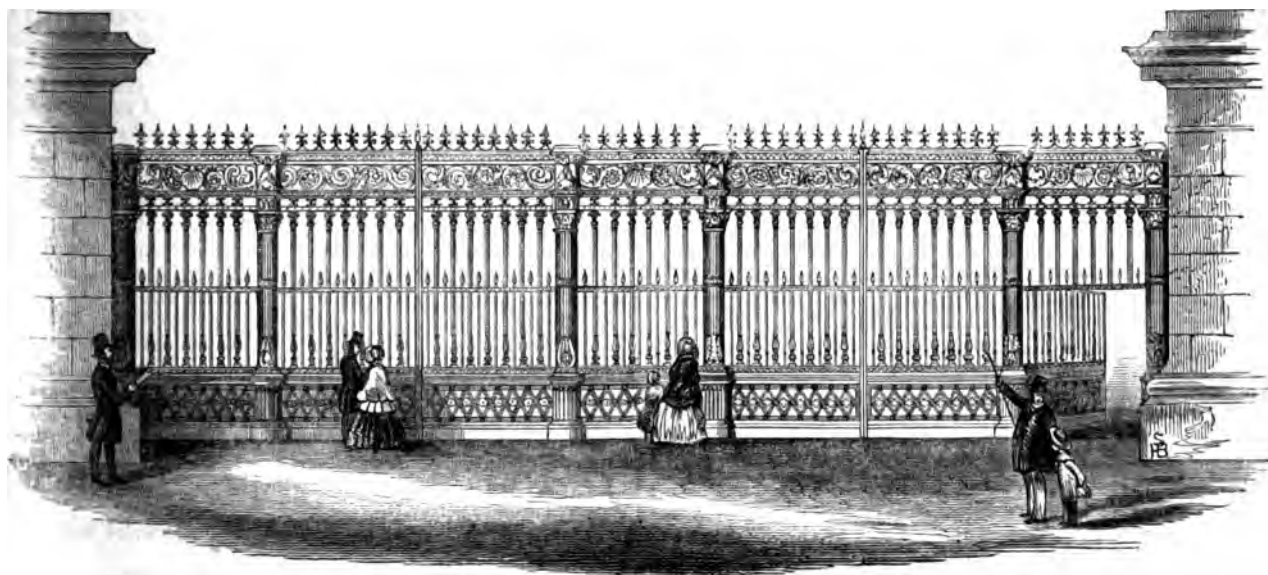
tion, from a time when the Arts and Sciences were yet unthought of, and man was left to follow the animal instincts of his nature, until the gradual operation of nobler impulses brought him to the attainment of a comprehensive scheme of philosophy, which placed the resources of the universe within the scope of his intellect, and enabled him to subdue the elements to his service. The principal and central figure is emblematical of Astronomy, and is twelve feet in height. This figure is



PEDIMENT TO THE PORTICO OF THE BRITISH MUSEUM.

supported on the left by another, emblematic of the science of Mathematics; and by others representing severally Manufacture, History, and Music; and, finally, a group emblematic of Peace. The figure representing Mathematics is of colossal dimensions, like that of Astronomy. These figures are said to weigh each seven or eight tons. The figures of History and Music are in sitting postures. The others are

standing. On the other side, to the right of Astronomy, are represented Painting, Architecture, the Physical Sciences, Agriculture, and the Chase. In this division, towards the extreme angle, there is a figure representing Man in his early state of rudeness as emerging from a cave, and crouching with reverence before the Spirit of Revelation, who pours upon him the light of Christian Truth. The angle here is



ORNAMENTED GATES TO THE BRITISH MUSEUM.

fitted with the figure of a crocodile, as emblematic of the cruelty and debasement of man in the lower steps of his progress from the savage to the civilised condition. In the opposite angle we observe the figure of a tortoise, emblematic of the slowness of human progress, and the necessity for perseverance to the attainment of a high degree of cultivation.

The subsidiary groups upon each side fill up the area of the tympanum, and make out the allegory with tolerable perspicuity. The general composition, the grouping, and the disposition of the figures, are highly artistic, producing an impression of life and action, which, to some degree, tend to relieve the heaviness of the massive and external façade. The sculpture is executed in a broad and effective style, the material is Portland stone. The decorative accessories are to the taste of a large proportion of beholders, this style of ornament is considered to produce a rich and pleasing effect in part of the exterior.

* Previous Notice in No. 3.

THE ORNAMENTAL GATES AND RAILING.

A railing of some magnificence sweeps in front of the South Façade, and encloses the area of a quadrangular shape. It is raised upon a dwarf wall of granite, three feet in height; the balustrade is of bronze richly wrought, and each baluster is terminated with a spear-head, beneath which the balustrade is encircled with an ornamented band. The spear-head is gilt, and the effect of the whole is certainly above common-place. But whatever enrichment the gilding may confer, it cannot be expected to be of long permanence, as we have seen in the case of similar work in the railing in front of Buckingham Palace, where the gilding became in a few weeks of a much darker colour than the bronze itself, which seemed to resist the deposit of soot more effectually than the gold could do. The balustrade from the dwarf wall to the railing is nine feet in height, without the spear-head. The entire length of the enclosure is 800 feet from west to east, exclusive of the extent carried round upon the east side, in Montague-street.

In the centre of the railing there is erected a grand set of gates,—a very fine and massive specimen of metal-work. Each of the two carriage-gates is supported by a pair of square panelled pillars, each strengthened by a handsome fluted column with a composite capital, surmounted by a richly gilt dolphin. The edges of the capital and the ornamented band which encircles the column are also gold, and serve to give an agreeable relief to the massive proportions of the whole. On either side of the carriage-gates are foot entrances, these also being flanked by supporting pillars let into the piers. The gates are executed by Messrs. Walker, of York, after the design of Mr. Sidney Smirke, A.R.A. They are especially elaborate and rich in their details. The frieze is formed entirely of hammered iron. The other portions were cast in metal moulds; chiefly *piece-moulled*, for the purpose of giving relief to the capitals.

Each half of the carriage-gates weighs five tons, and the cost of the whole railing and gates has been nearly 7000*l*. The gates are drawn open by a windlass, which is worked by machinery under-ground.

Upon the piers of the gates, which are of granite and very massive, are to be placed the statues of Bacon and Newton; and, on two other piers, which are equally massive and noble-looking, and are placed near the ends of the railing in Russell-street, opposite the buildings for official residences, will be erected statues of Milton and Shakspeare. The four statues are to be executed by Sir Richard Westmacott.

The metal-work here is allowed, on all hands, to be of superior merit, and a magnificent example of its kind. But it is also remarked, that its style is far from being in harmony with the architecture of the building, which is strictly Greek in its elements. The railing, too, is so contrived as to spoil the appearance of the building from the public street; the effect that might be expected from the massing of the grouped columns being frittered away by the division of the façade into parts, laterally and vertically, when looked at through the balustrade from Great Russell-street. The consequence is, that to obtain anything like a full view of the building, you must go inside the railing; and then, justice is not quite done to the effect it is calculated to produce, for you have come too close, to take in the whole frontage at one aspect.

VENTRILOQUISM.

THE art and practice of ventriloquism, under the more euphonious title of Polyphony, has of late years exhibited so much improvement in the curious and remarkable entertainments occasionally produced by Mr. Love, that it deserves and will reward a little judicious attention directed towards its all but miraculous phenomena, and the causes and conditions of their astonishing display. The art is of ancient date, the peculiarity of the vocal organs in which it originates, like other types of genius or aptitude, having been at intervals repeated. References in Scripture to "the familiar spirits that peep and mutter" are numerous. In the early Christian Church the practice also was known, and a treatise was written on it by Eustathius, Archbishop of Antioch, in Greek. In 1629 this was translated into Latin by Allazzi, an Italian. It is entitled, "*Leonis Allatili de Engastrimytho Syntagma*." The main argument of the book is the evocation of the ghost of Samuel.

By the Mosaic law the Hebrews were prohibited from consulting those who had familiar spirits. By one of such it is stated that the Witch of Endor divined, or perhaps that she was possessed by it; for the Hebrew *ob* designates both those persons in whom there is a familiar spirit, as well as those who divined by them. The plural *oboth* corresponds with the word ventriloquism. In the Septuagint, it is associated with *gastromancy*—a mode of ancient divination, wherein the diviner replied without moving his lips, so that the consulter believed he actually heard the voice of a spirit; from which circumstance, many theologians have doubted whether Samuel's ghost really appeared, or rather whether the whole were not a ventriloquial imposition on the superstitious credulity of Saul. We may see in this unfortunate monarch and his successor the distinction between true religion and false superstition; and indeed in the poets and prophets generally of the Israelites, who continually testify against the latter in all its forms. To them, to the Greeks, the Egyptians, and the

Assyrians, ventriloquism was evidently well known. By reference to Leviticus, we shall find, as we have said, the law forbids the Hebrews to consult those having familiar spirits. The prophet Isaiah also draws an illustration from the kind of voice heard in a case of divination. "Thou shalt be brought down, shalt speak out of the ground, and thy speech shall be low out of the dust; thy voice shall be as one that hath a familiar spirit out of the ground, and thy speech shall whisper out of the dust." It is curious that the Mormons quote this text as prophetic of the discovery of their Sacred Book. In the Acts, Paul is described as depriving a young woman of a familiar spirit, in the city of Philippi in Macedonia;—she is announced as "a certain damsel possessed with a spirit of divination, which brought her master much gain by sooth-saying." There is also that well-known tale in Plutarch which is so impressive even to this day on the Christian imagination—the story we mean, of Epithoræ, who, having embarked for Italy in the reign of Tiberius Cæsar, suddenly heard a Voice from the shore, while becalmed one evening before the Pæze—two small islands in the Ionian sea which lie between Coreya and Leucadia; such Voice addressing Thamus, a pilot, and an Egyptian by birth, who refused to answer till he received the third summons, whereupon it said, "When thou art come to the Palodes, proclaim aloud that the great Pan is dead!" It is added, that "the passengers were all amazed; but their amazement gave place to the most alarming emotions, when, on arriving at the specified place, Thamus stood in the stern of the vessel, and proclaimed what he had been commanded to announce." St. Chrysostom, and the early fathers, mention divination by a familiar spirit as practised in their day; and the practice is still common in the East; as it is also among the Esquimaux. As to the treatise of Eustathius, the good bishop's notion was that the Witch of Endor was really possessed of a demon; whose deception the vision was, being produced by supernatural agency, not, as cited in the Septuagint, by Engastrimism, or Ventriloquy.

In the nineteenth century, we are told by Sir David Brewster, that ventriloquists made great additions to their art. The performances, he says, of Fitzjames and Alexandré were far superior to those of their predecessors. "Besides the art of speaking by the muscles of the throat and the abdomen, without moving those of the face, these artists had not only studied, with great diligence and success, the modifications which sounds of all kinds undergo from distance, obstructions, and other causes, but had acquired the art of imitating them in the highest perfection. The ventriloquist was therefore able to carry on a dialogue in which the *dramatis voces*, as they may be called, were numerous; and when on the outside of an apartment, could personate a mob with its infinite variety of noise and vociferation. Their influence over the minds of an audience was still further extended by a singular power which they had obtained over the muscles of the body. Fitzjames actually succeeded in making the opposite or corresponding muscles act differently from each other; and while one side of his face was merry and laughing, the other side was full of sorrow and tears. At one time, he was tall, and thin, and melancholic, and after passing behind a screen, he came out bloated with obesity and staggering with fulness. M. Alexandré possessed the same power over his face and figure, and so striking was the contrast between two of these forms, that an excellent sculptor (M. Joseph) has perpetuated them in marble. This new acquirement of the ventriloquist of the nineteenth century, enabled him in his own single person, and with his own single voice, to represent a dramatic composition which would formerly have required the assistance of several actors. Although only one character in the piece could be seen at the same time, yet they all appeared during its performance; and the change of face and figure on the part of the ventriloquist was so perfect that his personal identity could not be recognised in the *dramatis personæ*. This deception was rendered still more complete by a particular construction of the costumes, which enabled the performer to appear in a new character, after an interval so short that the audience necessarily believed that it was another person."

In all these particulars both Fitzjames and Alexandré have been excelled by Mr. Love.

Some amusing anecdotes may be gathered, illustrative of ventriloquism.

One M. St. Gille, a ventriloquist of France, had once occasion to shelter himself from a sudden storm in a monastery in the neighbourhood of Avranche. The monks were at the time in deep sorrow for the loss of an esteemed member of their fraternity, whom they had recently buried. While lamenting, over the tomb of their departed brother, the slight honours which had been paid to his memory, a mysterious voice was heard to issue from the vaults of the church, bewailing the condition of the deceased in purgatory, and reproving the monks in melancholy tones for their want of zeal and reverence for departed worth. Tidings of the event flew abroad; and quickly brought the

inhabitants to the spot. The miraculous speaker still renewed his lamentations and reproaches; whereupon the monks fell on their faces and vowed to repair their neglect. They then chanted a *De profundis*, and at intervals the ghostly voice of the deceased friar expressed his satisfaction.

One Louis Brabant turned his ventriloquial talent to profitable account. Rejected by the parents of an heiress as an unsuitable match for their daughter, Louis, on the death of the father, paid a visit to the widow, during which the voice of her deceased husband was all at once heard thus to address her,—"Give my daughter in marriage to Louis Brabant:—he is a man of fortune and character, and I endure the pains of purgatory for having refused her to him. Obey this admonition, and give repose to the soul of your departed husband." Of course, the widow complied; but Brabant's difficulties were not yet all overcome. He wanted money to defray the wedding expenses, and resolved to work on the fears of an old usurer, a M. Cornu of Lyons. Having obtained an evening interview, he contrived to turn the conversation on departed spirits and ghosts. During an interval of silence, the voice of the miser's deceased father was heard, complaining of his situation in purgatory, and calling loudly upon his son to rescue him from his sufferings, by enabling Brabant to redeem the Christians at that time enslaved by the Turks. Not succeeding on the first occasion, Brabant was compelled to make a second visit to the miser, when he took care to enlist not only his father but all his deceased relations in the appeal; and in this way he obtained a thousand crowns.

There have been few female ventriloquists. Effects produced by the female organs of speech have always manifested a deficiency of power. The artificial voices have been few in number, and those imperfectly defined. A woman at Amsterdam possessed considerable powers in this way. Conrad Amman, a Dutch doctor in medicine, who published a Latin treatise at Amsterdam in 1700, observes of her, that the effects she exhibited were produced by a sort of swallowing of the words, or forcing them to retrograde, as it were, by the trachea, by speaking during the inspiration of the breath, and not, as in ordinary speech, during expiration. The same writer notices also the performances of the famous Casimir Schreckenstein.

Different professors of ventriloquism have given different accounts of the manner in which they succeeded in producing their illusions. Baron Mengon, one of the household of Prince Lichtenstein, at Vienna, said that it consisted in a passion for counterfeiting the cries of animals and the voices of different persons. M. St. Gille referred his art to mimicry; and the French Academy, combining these views, defines the art as consisting in an accurate imitation of any given sound as it reaches the ear. Scientific solutions are various. Mr. Nicholson thought that artists in this line, by continual practice from childhood, acquire the power of speaking during inspiration with the same articulation as the ordinary voice, which is formed by expiration. M. Richerand declares that every time a professor exhibits his vocal peculiarities, he suffers distension in the epigastric region; and supposes that the mechanism of the art consists in a slow, gradual expiration, drawn in such a way, that the artist either makes use of the influence exerted by volition over the parietes of the thorax, or that he keeps the epiglottis down by the base of the tongue, the apex of which is not carried beyond the dental arches. He observes, that ventriloquists possess the power of making an exceedingly strong expiration just before the long expiration, and thus convey into the lungs an immense quantity of air, by the artistical management of the gress of which they produce such astonishing effects upon the hearing and imagination of their auditors.

The theory propounded by Mr. Gough in the "Manchester Memoir," as the principle of reverberated sound, is untenable, because ventriloquism on that theory would be impossible in a crowded theatre, which admits not of the predicated echoes. Mr. Love, in his account of himself, asserts a natural aptitude, a physical predisposition of the vocal organs; which, in his case, discovered itself as early as the age of ten, and gradually improved with practice, without any artistic study whatever. He states that not only his pure ventriloquisms, but nearly all his lighter vocal imitations of miscellaneous sounds, were executed at the first instance on the spur of the moment, and without any premeditation. The artist must evidently possess great flexibility of larynx and tongue. Polyphony, according to our modern professor, is produced by compression of the muscles of the chest, and is an act entirely different from any species of vocal deception or modulation. Here is no method, he tells us, of manufacturing true ventriloquists. Nature must have commenced the operation, by placing at the artist's disposal a certain quality of voice adapted for the purpose, as the raw material to work upon. It is like a fine ear or voice for singing, the gift of Nature. It follows, therefore, that an expert polyphonist must be as rare a personage as any other man of genius in any particular art.

REGAL ROME.*

THE Eternal City had once a narrative associated with such poetry as the gorgeous fancy of a Livy and the polished imagination of a Cicero could invent, or their taste adopt. With the legends thence originating, our childish studies have been nourished; and our grandiloquent Macaulay has recreated in sounding verse "The Lays of Rome," which our humbler Goldsmith had previously embodied in that easy and familiar prose which makes his school-histories so charmingly readable. But the critical spirit of modern times has, by analysis, "murdering, to dissect," destroyed our faith in these early fables, and reduced them to their primitive elements. The writers of Roman history, without critical experience, and with only the fragmentary information extant on engraved monuments to assist them, were swayed by various motives in their arbitrary interpretations of the mere hints and suggestions to which they had access. They were, as Mr. Newman states, "patriotically credulous, even when they aimed at truth;" while it is notorious that the aristocracy falsified their family records through vanity, and the senate garbled their own decrees through party-spirit. Even Cicero and Livy, though fully conscious of these circumstances, treated the ancient Roman tales with the same reverence as the religious mythology. Patriotism required that they should be plenarily believed, and to patriotism they naturally enough sacrificed criticism. Yet, from Perizonius to Niebuhr, doubts had been felt; and, at length, in the person of the latter, the iconoclast was found who struck at these idols with destructive zeal, dislodged them from their authoritative pedestals, and trod their atoms into dust.

We well remember that Niebuhr's conclusions were, some twenty years since, received in this country with great reluctance. The majority still clung to their Goldsmith, and easy reading; and some made it even a matter of religious duty to conserve the received traditions, whether false or true, and to resist the destructives in every way on all paths of enquiry whatsoever. But time wears away opposition of this kind, and Dr. Arnold found means of commending, in a popular form, the more critical deductions of foreign scholars in relation to early Roman history, and his book was received with much favour. The tendency of the English mind has since been to believe in Niebuhr; and thus all further agitation of the subject seemed precluded. But "they manage these things differently" in Germany;—there, that great critic's erudition and ingenuity, so far from fixing an orthodox faith, are only permitted to act as a stimulus to still further research, by which sometimes the decisions of the master himself are reversed; and thus it is that the science of history is placed in a condition of perpetual progress, and not brought, as with us, to a dead stand-still. Mr. Newman has confessedly worked in the spirit of a German student, and dared to differ, in many particulars, from Niebuhr. Hence the volume before us.

All examples of independent thinking deserve to be encouraged; and one object of our publication is to promote the desirable habit in the minds of our readers. One conviction arrived at by the force of thought, is worth all the shallow learning derived from indolent acquiescence in undisputed authorities.

The received chronology of the Romans assigned 245 years to seven elective kings, three of whom perished by a violent death, and the last was prematurely expelled;—an absurd proposition on the face of it. One century, or less, was manifestly enough for the united reigns of these monarchs. Tradition, however, may have failed in preserving the names of all the kings; and of the earlier ones, like that of Numa, the reign was, perhaps, mythological. We may doubt whether Tullus and Ancus were real men. "If," says Mr. Newman, "we imagine sixteen elective kings between Numa and Tarquin the Proud, this may yield 200 years,—a little less than the 208 of the old annalists." . . . "To recover," he proceeds, "the history of the Sabine-Roman kings is obviously impossible; and all the public events that we *certainly know* concerning the period, seem to be comprehended in two sentences:—1. That the Sabine and Roman nobility became effectually blended into one State and one race, with one Sabine religion; and 2. That Rome went on prospering, and acquiring masses of Latin subjects and citizens."

We shrewdly suspect that, in this brief statement, we have as it were ensphered and included the whole argument in dispute, with its solution and its practical lesson. The latter, however, requires fuller development. Mr. Newman rightly remarks, that probably the prosperity of the city was due to the king's having headed the movement-party for enfranchising and elevating the lower classes,—a necessity arising from the melancholy fact that "every liberal measure from an order of men

* "Regal Rome: an Introduction to Roman History." By Francis W. Newman. TAYLOR AND CO., 1852.

comes too late." And this view is corroborated by what followed on the destruction of royalty in Rome. The lower population discovered that they had lost their patron, and were exposed to hundreds of

tyrants, and thenceforward struggled to regain for themselves a powerful Protector. The success of the plebeians was complete.

But in order fully to avail ourselves of the moral lesson involved in



THE FINDING OF ROMULUS AND REMUS.—FROM THE PICTURE BY PIETRO DA CORTONA.

the narrative of Roman greatness, the tale must be followed into its latest recesses. Rome continued to conquer; consequently she acquired subjects in fresh masses outlying the plebeian class; and those new peoples had no organs of protection until the Roman constitution was violently subverted. Then arose emperors, from whom the population of the provinces gradually obtained the gift of Roman citizenship. To

preserve her own freedom, free Rome ought to have granted it long before.

But as it was conquest that ruined the later republic, even so apparently it was conquest that ruined regal Rome. Ancus and Tarquin by their victories enlarged the state, and that so rapidly that the new subjects were necessarily enfranchised. "Not to have done so," says

fewman, "would have weakened the state from within." By this, however, the old citizens were displeased, and their discontent led the constitution under Tarquin the Proud. Brutus and Cinna exceeded the law of the occasion in the total abolition of

ty. The wicked rightly observes that, of Sextus Cinna did not royal power for accomplishment, might have been treated by any who wore a crown. Nevertheless, the influence of swailing feelings at the time, it was added to the haughty inherent in blood. That was the power. It was the sword of the sword that only the plebeians were

deprived of their representatives; a narrow exclusive caste Rome more rapidly had risen. Tyranny then was vested in turbulent tribunes, who substituted the elective king. "The destruction of monarchy," adds Mr. Newman, "did not come in the ripeness of when monarchy had finished its work, and the lower people had power of self-defence. It was the explosion of rage against a tyrant because of personal iniquity; and it became the prelude to a century and a half of anarchy."

The great charm of Newman's book is its characteristic which is borrowed from the old's practice, namely, that of illustrating ancient by means of modern and customs. When he tells of Numa indocile the old Roman to the Sabine man, he alludes to Magna's introduction of Christianity against the Saxons; speaking of Vestal Flamens, comparing them to nuns of the Middle Ages. The great of Numa was to Sabines and Romans; and his two immediate successors alternately of Sabine de-

not by operation of law, but of party compromise, as at English times. The beautiful relation of patron and client in Rome he refers to that of landlord and tenant.—the number of tenants, however, being more regarded than the rents they paid, the patrician class coveting followers. Nor was the question mooted whether a farmer could eject the latter from the land; "no one dreamed of an act, any more than in feudal England." "Rent also was in all antiquity fixed by custom, as in modern Italy, not by competition; the peasants in general approximated more nearly to free and loyal tenants than to serfs bound to the soil." Such a style of dealing with a solete topic as this clearly brings it home to every-day intelligence. The great argument of the book relates to the Etruscans, in which

the author differs somewhat from Niebuhr, Otfried, and Müller, and agrees more with Dr. Prichard, Spalding, and Grote.

Etruria was larger than the modern Tuscany; and the Etruscans, in all civilising arts, were in advance of the other nations of Italy. Their

fleets commanded the seas, and their heavy-armed infantry were unmatched on the land, before Rome existed as a city. They were obviously derived from Phœnicia and Egypt, and came to Italy by sea, by a gradual course of immigration. A fleet of Turchines or Etruscans founded the town of Tarquinii — (Tarquinii is merely another pronunciation of Turchina) — and called it after their own name. Their success induced a second and third colony to venture, until the coast was studded with cities. Probability accords with tradition in assigning Lydia as their birthplace, and not, as held

by Niebuhr, Otfried, and Müller, Italy itself, or the Alpine border. Tarquinii is celebrated for its maritime commerce; and it gave to the Greeks their name for all the Etruscans. By this channel the elegant arts of Egypt, Phœnicia, and Asia Minor found their way into Italy, at a time when Greece Proper was still rude; but as soon as she began to

unfold her peculiar genius in sculpture, moulding, and painting, the Tarquinians imported her productions and imitated her skill.

Mr. Newman accepts the story of the elder Tarquin as transmitted by Livy and Dionysius. He derived his birth from Corinthian parents who had settled at Tarquinii in Etruria; a later age confidently, but it seems erroneously, named his father Demaratus. The Romans, indeed, knew not the name of Tarquin himself; it was then unlikely they should know that of his father. Demaratus was a well known Corinthian emigrant to Etruria in early times. The influences intro-

duced into Rome by Tarquin were naturally half Greek in character. He married an Etruscan lady of rank, named Tanaquil; but, finding his Corinthian blood to hinder his rise, he migrated to Rome. To be a foreigner in an old state is an obstacle to advancement, but not in new ones; in England and Europe generally, but not in Russia, nor America. Nor was it so in the middle ages. A "new city," like Rome, would, according to Livy and Dionysius, who attribute the sentiment to Tarquin, look only to personal merit; and, in fact, he, with his troop of retainers, was honourably received in Rome, and established there under the name of the *Gens Tarquinia*, or clan derived from Tarquinii—a circumstance which makes it improbable that any Roman clan had previously been Etruscan; at least, notoriously so. His



THE PANTHEON.



THE ARCH OF TITUS.

advance to royal power arose from his courting the plebs—the unenfranchised masses of the community.

The great merit of Mr. Newman's book consists in its brevity and intelligibility. Even where he agrees with Niebuhr, he is much clearer. But to Niebuhr must be conceded the honour of breaking up the ground. Properly speaking, Niebuhr should be considered rather as a pioneer than a destructive. From a recent life of Niebuhr that lies before us,* we find the great historian to have been a man of heart and impulse, and practically little disposed to intellectual iconoclasm. With the criticism that destroys, he possessed the poetry that constructs. His was indeed a romantic structure of mind; but his love for truth was paramount. He sought it even in the ballad-lore that he reduced to an inferior level. His great endeavour was to ascertain what original basis there was for the fable, and by what gradual accumulations and accommodations it arrived at its mature and final shape. By such

* "The Life and Letters of Barthold George Niebuhr, with Essays on his Character and Influence." By the Chevalier Bunsen, and Professors Brandis and Loebell. 2 vols.

means he was able to ascertain its spirit, and, by pursuing this in a constructive, an "edifying" mood of mind, to come to some historical conclusion as to the relation of the fable with the fact. A process like this differs altogether from vulgar scepticism. It is the legitimate doubt of the philosopher, who questions only to get an answer;—not to dispute or to deny, but to obtain evidence and satisfaction. Doubting, in this sense, is but thinking; and such thinking is only, and nothing less than, a desire for truth.

Our Engraving on page 52 represents a scene well known to all readers of Roman tradition:—"The Finding of Romulus and Remus (the subsequent founders of the City of Rome) by the Shepherd Faustulus." The other Engravings, "The Colosseum," and "The Arch of Titus," though referring to a later period than that comprised in Mr. Newman's work, will be looked upon with interest in connection with the subject.

SIAM, AND THE INDO-CHINESE.*

IT is a startling, yet an undeniable fact, that no countries with which Great Britain carries on her enormous trade have been so unproductive of the usual progressive results of commerce as India and the

Indo-Chinese territories. Siam, Japan, Cochin-China, Corea, and Ava, all preserve to this day a sullen system of seclusion, from which even the terror of European arms will not drive them, whilst at the same time it remains a source of wonder that the voice of interest does not prompt the princes and potentates of these kingdoms to abate the ridiculous restrictions which are placed upon all species of trade and commerce.

At this very moment we are engaged in a war with the court of Ava, whose arrogance, so signally humbled by the victories of Campbell, never yielded further than to grant permission to our ships to go up the Irawaddi without the formality of unshipping rudder and guns. It is true that a large sum of money was extracted from the wealthy coffers of the prince as compensation for the perils and destroying influences of war, but of solid advantages none were gained by the humbling of Burmese pride.

Contiguous to Ava is the kingdom of Siam, the rulers of which have ever been characterised by the same silly pride and shortsightedness which marks the career of Indo-Chinese princes. Though Siam is known more particularly to many as being the birthplace of the Siamese twins, it is a country whose importance in matters of commerce cannot for a moment be disputed. The prosperity of Singapore is in intimate connection with that of Bangkok, the Siamese capital; and whenever circumstances have combined to create distrust of the English authorities, in the suspicious mind of the King of the White Elephant, the trade of our great free port in the straits has been immediately affected. Siam had till lately been ruled for a number of years by a bloated and ignorant monarch, of whom the following picture given by Mr. Neale may be taken as a characteristic representation.

"We hopped into the presence-chamber on all fours, like a company of frogs on the borders of a marsh; and this method of approaching the king was a leniency only accorded to us, for the Siamese themselves crept in on their stomachs, and remained prostrate during the whole interview. On our first entry, I could perceive nothing but a very magnificent curtain worked entirely of gold and silver tissues, which stretched across the whole length of the room; presently the soft notes of a remarkably sweet-toned organ reached our ears, and as the symphony gradually swelled into the beautiful cadence of one of Mozart's masterpieces, the curtain drew aside by degrees, and revealed to our expectant eyes the corpulent and half-naked body of the mighty and despotic king of Siam. The silence that ensued for some minutes was only interrupted by the sweet music of that self-performing little organ; and innumerable were the prostrations made by the craven courtiers and flatterers that surrounded his Majesty. The king was seated upon a throne (cross-legged of course), of somewhere about

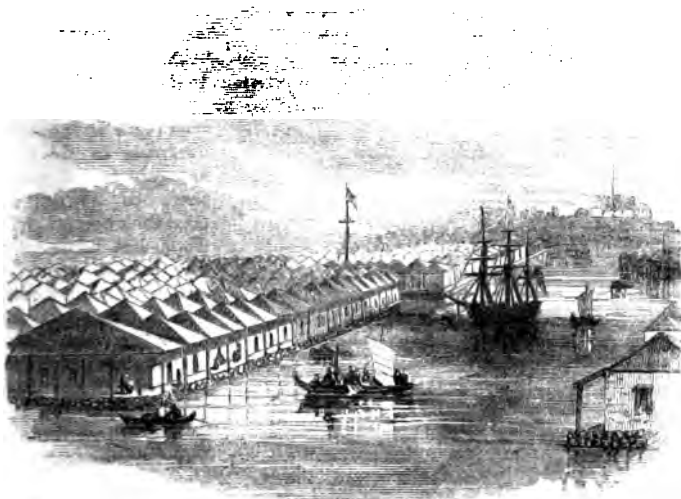
* Narrative of a Residence in the Capital of the Kingdom of Siam. By F. R. NEALE. Office of the National Illustrated Library, Strand, 1852.



two feet of elevation from the ground, formed of most exquisite workmanship in ivory and ebony, with a cushion and hangings of fine red velvet, enwrought with silver: and the scene would have been very imposing, had it not been for the ludicrous appearance of His Majesty himself, who (excepting the fine gold tissue cloth wound round his loins, and reaching down to his knees) had very much the appearance of an old over-bloated Brahmin priest, and appeared to have been putting to the test that insane practice, which tradition attributes to the Brahmin tribe, of eating till the straw, which they had previously tied round their stomach as a mark to limit their feasting, should burst.

This person, who lived to be upwards of sixty, was the most determined partisan of the seclusion system, and although his country received considerable benefit from the effect of our late proceedings in China, and the opening of trade in those parts, he was too much afraid of losing the countenance of his Chinese colonists to enter into any treaty by which direct intercourse would be opened for commercial purposes.

In 1850, Rajah Brooke endeavoured to overcome these hostile sentiments on the part of Siam, by proceeding to Bangkok and displaying to the unrefined eyes of the savage prince all the marvels of a civilized embassy; but the result was from the first entirely different from that which the Rajah expected. The arrival of a squadron in the waters of the Bangkok river, so far from impressing the Prince with sentiments of wonder or admiration, merely excited his fears, and threw the Siamese into a state of consternation. They put as good a face on the matter as they could: instead of piloting the British ships up the navigable canal to the capital, they brought them round the bend of the river, in order that the British sailors might be impressed with the strength of a wretched boom and forts. And for a month after the Rajah was feasted with promises and sweetmeats, until at last he found they were only playing with him,—his ultimate demands having been met with most diplomatic evasions. Fortunately for England, certain hostile intentions at first entertained, after the egregious failures of this embassy, were suffered to remain unperformed, and an opportunity will now offer for establishing more friendly relations.



CITY OF BANGKOK.

Amongst the curiosities ably described in Mr. Neale's book, not the least curious is the character of the Prince Chou-Fan, who, being looked upon with an eye of jealousy by the king, had taken refuge in the sanctuary of Buddhist priesthood, and under its protection, progressed with an education which promises to be of the greatest utility to English interests. Well versed in the English language, in the rudiments of geometry, and the more modern arts of war, this prince has now succeeded to the Siamese throne, and the steps which he has already taken prove his willingness to enter into a different style of relations from that hitherto indulged in by his predecessors.

It may not be unnecessary here to note that the immediate result of Rajah Brooke's embassy was not merely a stagnation of the trade between Siam and Singapore, but a reduction of it, equally surprising and remarkable. We have it on the testimony of the most wealthy merchants, that, in 1850, during which the effects of this mission were felt, at first from the fears caused by rumour of its intention, and then by its actual proceeding, there was a decrease in the general trade between Singapore and Siam of 33 per cent. as compared with the previous year, 1849. And on the article of sugar alone the decrease amounted to 53 per cent. Fortunately then, for our interests, the then ruler of Siam died; and in January, 1851, the Prince, whose friendly

feelings to England we have noted, was raised to the throne. His influence was instantly shown by a reduction of the customs' duty on shipping from 1700 ticol to 1000 ticol per fathom.—a result which would, it was expected, cause the establishment of direct trade, inasmuch as merchants would be enabled to load at Bangkok with sugar direct for Europe. The king has also established a printing-press, supports the missionaries, and has ordered a general revision of the laws of the country; and we now learn from undoubted authority that a fresh mission will shortly be started to renew diplomatic relations, which so signally failed during the lifetime of the late prince.



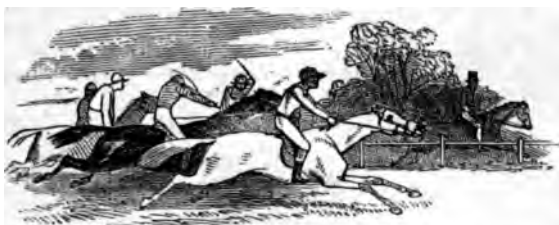
A MALAY IN HIS NATIVE COSTUME.

Siam has been most egregiously misgoverned, and, in this respect, resembles the whole of the kingdoms in these parts. But like Ava, it has natural advantages of the greatest importance, being productive and fruitful in most articles of consumption peculiar to the country, and having mines of most of the precious metals in abundance. As an outlet for British manufactures, it may be less advantageous than Ava, for the Siamese go about, for the most part, comparatively naked; but, perhaps, the missionaries may induce some changes in this respect, which may conduce to their eternal felicity, and the extension of British made goods.

It is clear that Siam will be the first of the Indo-Chinese nations to abolish the seclusion system, if the good intentions of the present ruler continue in their present state, and are ably used to our advantage; and in this, Siam will earn the thanks of all the people of these countries; for it is obvious, that the time has come when these foolish obstructions must cease. With a railroad across the Isthmus of Suez, which will join the Mediterranean and Indian Seas on the East, whilst the Panama railroad must soon join the Atlantic and Pacific Oceans on the West, it will be yearly more difficult for these countries to remain *in statu quo*, and we may, therefore, expect great and important changes to take place in these hitherto comparatively unknown portions of the globe.

THE MYSTERIES OF THE TURF.

A VOICE FROM "THE RING."



HE turf mania, which rages to such a height at the present day, is a subject which must not be overlooked by any publication pretending to illustrate the social condition of the people. Much as we love the exhilarating influences of the race-course; much as we admire the exciting struggle for such a stake as the

Derby,—now shortly to come off; and important as we admit to be the system of breeding and training by which England preserves the finest stock of horse-flesh in the world; we are yet free to declare that all these charms, all these proud results, may be purchased at too dear a price, if they involve a large portion of the community in a reckless and perpetual career of gambling, which, sooner or later, must lead countless individuals, with families dependent upon their fortunes, to ruin,—perhaps to shame.

We are no purists in this matter, nor in any other in which the honest and manly enjoyment of the multitude is concerned; we would encourage a noble sport which for ages has enlisted the sympathies of all classes of the community;—a sport essentially British, inasmuch as no foreign imitators have ever come within any appreciable distance of us in it; we do honour to the genuine sportsmanlike feeling which points to "the Derby day" as a grand national anniversary in the almanack of the peer and the peasant alike; but, at the same time, we would perpetuate the enjoyment of all these at a little less cost of valuable time and hard-earned pelf, than they incur at present to the unthinking multitude. Look around us. Are not our public thoroughfares infested with betting offices at every turn, tempting the weak, the unwary, and the idly-disposed to part with their own or their employer's money, in the hope of becoming suddenly rich? Are not the columns of certain of the weekly press crowded with advertisements of the odds offered at these various establishments upon all forthcoming events; and lastly, have we not professional prophets, who also offer "certain fortunes" for fees ranging from half a sovereign down to a shilling? Let the "sporting man" calculate how much all these establishments cost in rent, advertising, and contingent expenses, and ask himself who pays for it all; and he will soon begin to learn how the housekeeping account has been on the wrong side, and how the pocket has been kept low for months and months past.

This speculative propensity as regards horse-racing is the more remarkable in John Bull, as he is certainly not a gambler in the ordinary vulgar sense of the word, to anything like the extent of his continental neighbours. As regards mere games of chance, as hazard, *roulette*, *rouge-et-noir*, &c., he is a mere baby when compared either with Frenchmen, Italians, Germans, Russians, or Californian "diggers." No!—he must have something beyond the mere "toss-up-of-a-half-penny" chance to engage him in play;—his common sense tells him that, in the ordinary course of events, the account of heads and tails is balanced, whilst "the table" has to be supported by a good percentage out of both. But give him some speculation in which luck and judgment may be combined,—in which by being a little more "wide awake" or getting up a little earlier than his neighbour, he may "work the oracle" to a profitable result; and whether it be consols, or Spanish stock, or corn, or railway shares, or—the "odds at the corner," he is your humble servant. And when John Bull does take anything in hand, he does it on a scale of magnitude which is not to be gainsaid. But after all, in this very merit that we take for our fellow countryman, is the secret of his undoing. The *roulette* table is conducted upon certain principles, with a certain *draw* in favour of the table, which can never be exceeded:—subject to these conditions, the chances on each coming event are always the same, and the "gambler" looks to chance alone, aided by a proper adjustment of successive stakes, to pull him through. Not so with your "knowing-one" in turf matters; the odds are always fluctuating in deference to certain supposed alterations in the chances of the respective animals,

the secret of which is known, or supposed to be known, only few. The vanity of supposing that he knows better than his hours is the cause of many a man's ruin on the turf, as on 'Chai

With these preliminary observations, let us now proceed to the various families and some of the mysteries of the Sporting World, putting apart considerations involved in the rearing and training of race-horses, as quite foreign to our present purpose.

The racing community may be properly divided into three great classes: 1st, book-makers, who lay "round," as it is called, that is, against all the horses for every event; 2nd, the public, who back particular horses; and 3rd, "touts," who watch, or pretend to watch, the movements of stables, and advise their gullible clients;—to whom have lately been added a distinct fraternity, styling themselves "prophets," or dealers in "tips." The first and the last are purely professionals; the second are middle-men, who are fed upon by the other two. Besides the partaking more or less of the character of the "professional," are "commission-men," who execute large operations for no and others, who are too lazy or too mysterious to bet for them and "jobbers," who take or lay the odds about particular

calculating upon, occurring in the ket, which will them to "hed cross their bets at These last come the special den of "knowing because they a posed to be acquainted with "secrets of the house" than the public, whose c and conceals the upon.

The genuine maker is the im ation of the phi of the ring; he at the centre of of chances, all p which are equal ferent to him. no predilections own, he views wi posure the swa and fro of the speculative x and is always r lay his 50000, the greatest "ca that ever emb the page of the He cares little the claims of bl



GREENHORN AND "TOUT."

"Back Bullfrog—it's a certainty!"



THE KNOWING ONE.

breed, the *prestige* of former performances, or the rumours of fav trials; he calmly lays the odds of the day against each reigning fa of the hour, well knowing that the anxiety of the public to "g invariably brings the animal's price to at least 50 per cent. short



SCENE IN THE RING.—"I can lay against Little Harry!"

fair average chance, and that the folly of the morrow will infallibly fill up the columns of his capacious ledger with investments against some new "lion," upon equally advantageous terms.

Book-making is a good trade, and if carried on with prudence is sure in the long run to be a profitable one. Your leviathan 20,000 pounder,



THE BETTING-OFFICE—"Odds laid from one shilling and upwards."

and your modest book of 50*l.*, will yield each their fair average of profit to its industrious compiler. The best of this sort of book-making consists in this, that it calls for a very small exercise of brains, beyond a clear memory, and a quickness at the commonest operations of figures. Industry and a good pair of lungs are advantages in catering for customers; and the book-maker may continue to bawl "I can lay against Hobby Nobble," "I can lay against Claverhouse," &c., &c., till he



BACK PARLOUR OF THE SPORTING-HOUSE.

has laid the amount of his book against either or any of the lot; and then he must "lay against Oratio," "lay against Little Harry,"—or the other Harry himself, till he is "full" about him also: and then—why then he may shut up his book, and patiently abide the event, in which he cares very little who may be the winner.

Book-making, however, has its temptations and its dangers for the venturesome wight who may be tempted to go beyond his prescribed margin. "Peppering" a favourite for the chance of bagging the heavy stakes for which he is backed, is very good sport in its way, but it is what will often spoil the best book, and if the book-maker has no reserve of capital to fall back upon, must drive him book and all from the market, and leave the public to whistle for their money. Let the book-maker indulge in no fancies of his own; let him lay the amount of his book against anything and everything,—the receipts will always go far to make up, even if they do not considerably out-balance the payments upon any particular winner. Let him recollect that under all and every circumstance he has only one horse in his stable, namely, "the field;" and that it is "a good horse," and ought to be taken care of; and that the "gentle public" will take care of it for him if he will leave it to their keeping.

The art and mystery of betting—including the rules of book-making and hedging—is of comparatively recent date. The Hon. Dick Vernon, as he was familiarly called, is recorded by Holcroft, the dramatist (who once was a stable-boy at Newmarket), to have been the first who, some hundred years ago, discovered the principle upon which, on one notable occasion, he "stood to win 10,000*l.* to nothing;" but, like every discovery of genius calculated to meet any great social requirement, that of book-making has grown with a giant's growth under the scientific treatment of subsequent professors. The turf, of all national amusements, is essentially democratic in its organisation and relations—in its associations and its influences. A clear course and no favour, a fair start and the best horse to win, is the principle of its operations, which at once levels all distinctions, and disposes summarily of all pretensions to exclusiveness, interest, or authority. The peer and the pedlar here meet upon equal terms, and pick one another's pockets without the slightest reserve or favour on either side. The sanctum at "the corner" was at all times open to all comers—who could pay. Of late years, however, it has been found that "the corner" afforded accommodation utterly inadequate for the millions who thirsted to take part in the exciting game; besides that the stakes to which aristocratic turfites confined their dealings are beyond their means. This great truth has recently led to the establishment of a whole town-full of betting-houses, where "all money is staked, and paid the day after the race;" and where the humblest artisan in her Majesty's dominions may risk his last shilling, and with it his last dinner, upon the same exciting event which jeopardises the last acre of the Earl's ancestral domains.

We come now to speak of the "betting-houses," which are the plague-spot of the present turf system. These establishments are of comparatively recent formation, and the rapidity with which they have increased in number and in display speaks volumes for the success of the experiment, and the profitable nature of the trade. The betting-office scheme followed upon the abolition of the "sweeps," and is a tenfold greater evil. In the "sweep," supposing it to be fairly conducted, every man who subscribed his share had an equal chance of drawing the winner, and the draw soon put him out of his misery by producing him a prize or a blank,—a favourite or a dead horse for his money. And though he might be tempted to try his fortune again and again, in spite of ill-luck, still he went each time on equal terms with the rest. Another and not immaterial point in the case of sweeps was, that they were drawn at stated intervals, and always in the evening, and did not necessarily encroach upon the business hours of the day. Not so the betting-office. Its doors are always open; new chances in the wheel of fortune are daily coming off; new fluctuations in the odds are hourly inciting the victims of a ruinous infatuation to new "investments." Rumours of trials,—of stable movements, are perpetually circulating amongst the *habitués* of these miserable dens. Now it is Bullfrog,—now Sabrina,—now Jack-in-the-box,—that is to be backed,—and backed for "a stake." The stable is "on," say the touts;—the money has been "sent up from the right quarter," say the knowing ones. The odds run rapidly up from 100 to 1, to 8, 6, 5 to 1, and still the poor dupe keeps backing and backing one after the other,—driven to it by fear of loss upon previous investments,—half a sovereign "just to save himself,"—till at the last he has backed so many, and laid out so much money upon the dirty tickets with which his pockets are crammed, that even if one of the horses he has favoured with his patronage should come off the winner, he, the poor dupe, will still remain a loser,—inasmuch as he will receive back somewhat less than the gross amount he has laid out upon the event. Of course, this is not always the case; and with the cool hand, and the really "knowing one," is very seldom so. It is the poor

public,—men who know nothing about horses, nor trainers, nor stables, themselves, and who merely run in the crowd after the "knowing ones," watching their movements,—taking tens and eights about animals after they, the said knowing ones, have cleared the market of the hundreds and fifties,—these are the unhappy wretches, who, voluntarily casting themselves under the wheels of a mighty Juggernaut, nourish with their life's blood the high priests of a new and iniquitous mystery.

Just step into one of these ticket shops, and cast your eye in shame and sorrow upon the squalid scene which it presents. Note the haggard, hungry aspect—the careless and shabby attire of the majority,—for men whose nights are passed in waking dreams of fortune, or of ruin, have no disposition to pay much attention to their dress in the morning;—not to add, that in many cases even as regards both clean linen and the day's meal, their "means are in supposition," depending upon the issue of some coming event. This is absolutely the case with the care-worn individual, in the garb of a mechanic, whom you see depositing his last shilling in exchange for that piece of card which is hastily thrust at him through yon pigeon-hole. This man was once a master builder in a small way; and it may truly be said of him that he has been the architect of his own fortunes, as of his misfortunes. He is now a journeyman—that is, he takes a day's work now and then, when driven to it by very hard necessity, and when his tools are not in pawn. He was once well to do, until he one day was so lucky as to draw 50*l.* in a sweep; and then he took to betting, and has done no good since. His plots of small houses he left unfinished for want of means—"skeletons" they call them—his wife and family are very nearly skeletons also, and wait at home the live-long day, vaguely speculating upon the chance of luck which may or may not give them a meal. For such is the mysterious influence of the gambler's vice, that wife and children all are thoroughly imbued with the infatuation of the master of the household, and are unrepiningly resigned to its penalties;—the youngest of them knows "father's horses," and knows that they are all they and father have to depend upon.

But our entrance is observed—we are recognised as strangers—and our movements are eagerly watched as we look over one of the numerous betting-lists; it being shrewdly suspected by some that we come upon some exclusive and out-of-the-common information to back "a winner." Ten to one, if we were to lay out a sovereign, "greenhorns" as we are, our luck would be followed by a dozen on-lookers; but we will not try the experiment; let us rather, following out our investigation of the social evils of the betting system, go into one of the numerous taverns or public-houses which abound in connexion with "the sporting world," and where the excitement of drink is brought in support of that of gaming. In this dark, dismal back parlour, congregate the voluntary victims of the day, awaiting the issue of the race upon which their fortunes are staked. Like demons doomed they herd together, feeding upon one another with sharp looks of greed and ill-will—for such is the necessary consequence of the game they are all about, that what is gain to one is the other's loss. There, as the hour approaches when the news should be "up," the face of every new comer is narrowly scanned, to read it if possible in its aspect. Before the establishment of the telegraph in its present perfection, a good deal of sharp practice went on during this interval; the "knowing ones," by skillful use of early intelligence, often "taking in the flats," by making bets which the latter had no chance of winning. But now those nefarious proceedings are, to a great extent, put a stop to.

Meantime, in this dull retreat, the sporting gentry occupy themselves in a variety of ways;—some in groups hedging off bets up to the last moment—others discoursing of their good or ill fortune past, and the prospects of the future;—others—older hands—moodily silent, reflecting with bitter but unavailing regret upon the past of a career of folly, the future of which is darker still. There leans one of this sort, against the chimney-piece;—he has seen better days; how much worse than the present are those to come, he dreads to contemplate. One day he will be absent from the scene, and that is all that will be known or cared about him. In the foreground we see a victim in an earlier stage of the disease. He is glibly descanting to his middle-aged companion upon his successes. He has had thirty-two winners already this season, out of thirty-eight. To hear him one wonders he has not made his fortune and retired from business;—and one half of this may turn out to be the case; for he has been so frequently absent from the counting-house lately that his employer is about to dismiss him. As for the "fortune" of the matter he is not quite so clear;—not having held a very strict audit of his accounts lately. His friends remark, however, that the splendid gold watch and chain with which he inaugurated the season have departed from his waistcoat, which is generally much more closely buttoned up towards the throat than in those happier days when he displayed a handsome set of paste studs. On the right are two youths who, being well weaned to misfortune, take things very coolly over sundry potations of malt and gin, and

smoke themselves into a sort of Elysium of forgetfulness. On the other side is a gentleman's coachman in undress, who, spite of his appearance, has been "fast" all his life. He has just been horrified by reading in "Bell's Life," that the wonderful animal upon which he had invested largely upon the strength of the very best of information, has been "scratched." He vainly inveighs against the "tout" for the mishap,—the latter, strong in drink, protesting loudly that he gave him the "office," to lay against the horse, as if he were dead a week ago!

But let us drop the curtain on the sad scene for the present. Next week we shall go through the remaining phases of the betting system; more particularly as it is affected by the impostors advertising their services as "prophets."

ELECTRO-MAGNETISM AS A MOTIVE POWER.

THE practicability of making use of electro-magnetism as a motive power has been often and much discussed. The following observations upon the subject are derived from a lecture recently delivered at New York, by Professor Page, himself the inventor of machinery for the purpose in question. Professor Page opened his observations by remarking, that, when he took up the subject of applying electro-magnetism as a motive power, he found that all that had been done was based upon the attractive and repulsive properties of electro-magnets. An electro-magnet consists of an insulated wire, coiled round a bar of soft iron, with its ends open, and connected with a galvanic battery. When the circuit of the battery—the wire that connects the two last plates of it together—is closed, the end of the soft iron bar, which before was powerless, acquires a mysterious power, and will attract a mass of iron with great force to it. This will not produce a motive power—it is static force; but when the circuit of wire is broken, the virtue of the magnet ceases, and the attracted metal falls.

The first engine for producing motive power by electro-magnetism, invented by Professor Henry (now of the Smithsonian Institute, Philadelphia), in 1833, with a battery contained in one cubic foot of space, sustained a weight of more than 3000 lbs.; and he constructed a machine to move machinery, which is described in vol. xx. of "Silliman's Journal." The electro-magnet has two poles, the positive and negative, and the two similar poles of two magnets repel one another. Professor Page found that all the old electro-magnetic engines were constructed on the principles of attraction and repulsion, to produce motion. It is known that Davenport in America, Jacobi in Russia, and Davidson in Scotland, made, some years ago, electro-magnetic engines of considerable size; Jacobi propelled a boat on the Neva in 1839; Davenport and Ransom Cook had quite respectable engines working in New York in 1840; and Davidson ran a locomotive, in 1842, on a railway near the city of Glasgow.

The engine of Jacobi was about two-horse power; that of Davidson propelled the locomotive, weighing five tons, at the rate of four miles per hour, and was equivalent to a little over one-horse power; but Davidson used the attractive power alone of the electro-magnet; as is represented in fig. 1.

The axle we will suppose to be one of the locomotives, with the wheels removed, and the magnets $M M'$ we will suppose to be firmly fixed on the truck of the engine. We will suppose the batteries to be fixed at each end of the truck, and now, if we had two axles and four wheels, we should have the locomotive; but fig. 1 will explain the principle of action much better. On the axle is a cylinder of wood, on which are secured three masses of iron at equal distances apart, and running the whole length. When one electro-magnet is charged it will attract one mass of metal to it, and thus make the axle move on its axis partly round; then this magnet has its circuit broken, and the opposite magnet charged, which attracts the opposite mass of iron on the cylinder, and thus rotary motion is given to the axle, and the wheels are revolved.

Near each end of the axle are two small cylinders, each one of which has the half of its rim next the large cylinder covered with metal; the outer halves, $o o'$, are partly covered with metal and partly with ivory; the dark spaces on $o o'$ represent the conducting parts of metal; the white are the ivory.

One end of the coil around magnet M' is connected with z , or pole of one battery; the other end of the wire a rests on c , the metal rim of one small cylinder. The wire b , from the other pole x , rests on the other metal part o , and thus the electric circuit is formed. The arrows point out the direction of the current which, when the circuit is formed, render the magnet M powerfully attractive, but when the circuit is broken, it has no attractive power. On the opposite small cylinder, the wire c rests on a non-conductor (the ivory), by which means the electricity cannot pass from d to e ; the circuit therefore is broken, and while M is a magnet, M' is non-magnetic; but as the cylinder revolves, it will be noticed that the ivory and the metal pieces on the small cylinders alternately break and close the circuits, and thus alternately attract the cylinder to give it a continuous rotary motion. Davidson used 78 pairs of 13-inch plates, the negative being iron, the positive ones amalgamated zinc. The result of power was very frail for such an amount of battery surface. We have heard no more about Davidson since.

Professor Jacobi got out of twenty square feet of platina battery surface, one-horse power. Many have believed, and now believe, that the principle

of attraction and repulsion is better than attraction alone. Davenport, of Vermont, used a walking beam-engine with metal pistons moving in hollow magnetic coils, each coil forming a whole hollow cylinder.

Professor Page's engine differs from all these in principle, in arrangement, and in action. He found that the magnet required time to receive the magnetism of the coil, or in the words of Snow Harris "to create a magnetic atmosphere," and it also required time, when the circuit was broken, for the magnet to part with its induced magnetism; the induced magnetism, or secondary current of the magnet, acted also in the very opposite direction to the one required.

To remedy this, he came to the conclusion that it was necessary to make the current of the magnet (the secondary current) act always in the same direction with the object to be moved, at the same time it was necessary that the magnet should always be magnetic. This was for the purpose of gaining in the element of time, as the magnet could not at once be deprived of its counter-force. He therefore adopted the principle of hollow electro-magnetic coils, and a number of them, as represented in fig. 2. The principle by which this engine is operated is electro-magnetic attraction by the intermittent charging of a series of hollow magnets acting continuously on a piston-magnet moving inside of them, in the direct line of motion, whether that line of motion be horizontal, vertical, or circular (rotary). Fig. 3 is a longitudinal vertical section of the circuit-changer, which performs the same office for this engine that a slide-valve does for a steam-engine.

The dark spaces are a series of hollow magnets formed of square copper wire wrapped round a mandril. There are about 1500 yards of wire in each coil. These coils are covered with a non-conducting substance. When the mandril is withdrawn, and these coils fixed on a frame, they form a cylinder made up of sections (coils). They are all connected together metallically, but are so arranged and connected with the cut-off or slide, that but three magnets (hollow coils) are charged at once, and one coil is being continually cut off behind, and the current being continually thrown on to the coil before, in the direction in which the piston is moving. This is the peculiar feature of this engine; it is a continual electro-magnetic draught in the secondary current direction of the iron magnet; this magnet is a round mass of iron a , placed in the very centre of the coils. When the coils are charged, this bar of iron moves inside like Mahomet's fabled coffin, touching nothing. In the machine exhibited (on the lecture-table) is a number of vertical coils, and inside of them a huge mass of iron of 520 lbs. weight; when these coils are charged by being connected to the battery, the huge bar mysteriously rises in the very centre of the coils; when the battery-circuit is broken, the bar falls. A number of persons were placed on the platform on top of this bar, and they were elevated by that mysterious agency—which cleaves the oak-tree into fragments, and no less powerful here, because unseen.

But let us describe the engine:—The dark spaces are the hollow coils; they are secured horizontally on a suitable frame. a is the piston or bar of iron, which is free to move in the inside of the coils, and which is attracted with great force, backwards and forwards, in the inside of the hollow coils; l is a piston-rod secured to a double crank, which gives motion to a shaft, on which is a fly-wheel k . This shaft, by having pulleys on it, can, by bands, give motion to all kinds of machinery. Attached to one side of the piston-rod is an arm m , which works the cut-off. The battery is not shown, but a is the positive wire, and b is the negative wire, coming from the opposite ends of the battery. Thumb-screws are represented to screw the battery wire to the rods of copper, one running along one side the whole length of the coils, and the other close to the coils on a narrow platform of the engine-frame; $d d$ are small blocks which are connected with the hollow coils by the wires $g g$, and form the connecting points of the circuit, and perform a similar office to the ports of a steam-engine; f is the slide moved by the arm m . It has two thin strips of copper on it, separated a short distance at the middle part. Each strip has two metal spring-plates $e e$ on it, always in contact with some of the copper blocks $d d$, as shown in fig. 3. Only two of these plates $e e$ are in connection with the battery at once, the ones, for example, at the left hand for the motion of a to the left, and the other set for its motion to the right. The wires $a' b'$, the springs $h h$, the slides $e e$, and the wires $g g$, form the electric circuit, rendering the coils magnetic; therefore, as the slides move backwards and forwards, the circuit is formed alternately from coil to coil, cutting off the current behind and throwing it on ahead, as spoken of before; i is the stroke-changer, that is, it reverses the stroke of the engine, by throwing the current from one half of the coils to the other half. This is done by two dogs, or projections $j j$, fixed on the side of the frame. The changer i is fixed on a centre-pin, and when it strikes one cam j , it brings one set of slides $e e$ to form the circuit, and when it strikes the other cam j , the changer i turns on its pin, and comes in contact with the strip of copper which is attached to the other slides $e e$; there are, therefore, always three of the coils charged at once, as will be observed in fig. 3; but whenever a full stroke is made, the changer i at once diverts the current from one half of the coils to the other, acting upon the opposite end of a , by the three coils near the middle being first charged, and so on one after the other as the piston moves along. A stroke of any length can thus be given to the engine—a thing never done before. The common electro-magnet—say one that will attract 1000 lbs. at one inch distant—will only attract 32 lbs. if placed at two inches distant; it loses power, to use a familiar phrase,

according to the square of the distance. In this engine, the piston always moves in the magnetic equator, which is the centre of the hollow coils.

Fig. 4 represents a section of a very ingenious electro-magnetic engine, invented by Soren Hjorth, of London, and patented April, 1849, which the inventor proposed to apply to propel ships and rail-cars.

A A is a horse-shoe-formed hollow magnet, conical on the inside, coiled with copper or other wires, and suspended in such a way that it oscillates on the centre B, with suitable bearings and plunger-blocks, as shown in the figure. In the interior of this magnet are fixed a number of conical rods of different lengths. B B is another horse-shoe-

flashes fleeting along, as the springs *e e* pass from one plate *d* to the other. It must not be forgotten that the charger *i* is continually in contact with the negative pole on the inside, and is only shifted mechanically on the positive side, to throw the current from one end of the piston to the other, to give the reverse stroke. No hot wells nor pumps are employed.

The question remains—Will this engine ever supersede the steam-engine? This engine, unlike others, we now say, is *practical*—positive evidence having been adduced to prove this; the question is one of economy between this and the steam-engine, which is also a very simple machine. We have not the means of judging of the comparative expense of this engine and the steam-engine, nor of

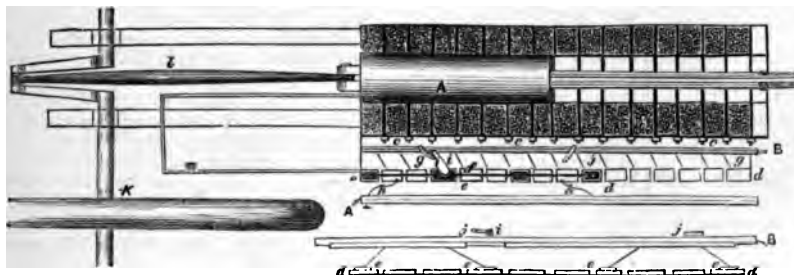


Fig. 1.

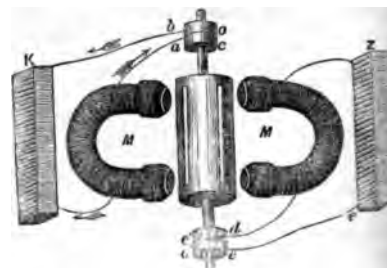


Fig. 2.

Fig. 3.

formed magnet, conical on the outside, with apertures corresponding to the conical rods in the magnet A A, and likewise coiled with wire. This magnet moves on the guide-rods D D, which are connected together at the top by means of the crosshead E, and fastened at the bottom of the magnet A A. The guide-rods may also be fixed to the magnet C C, and guided by rollers. A connecting-rod is attached on the magnet C C, in the centre, driving a fly-wheel shaft by cranks, in the usual way. F is the commutator to change the electric current as required, which is similar in its mode of working to the slide-valve of a steam-engine, and moved in a similar way by an eccentric and concentric rod. The action of the engine may be reversed by the use of a supplemental eccentric. The governor serves to regulate the proper supply of the electric current to the commutator O, as afterwards described.

The current, after being regulated by the governor, is introduced through the commutator into the helix of wires coiled round the magnet A A, and thence through the conducting wires to the helix or coil of wires surrounding the magnets C C, and thence through the conducting wires to the battery, or by the reverse course, as may be found convenient. As soon as the electric fluid from the batteries passes round the magnets, they exercise their power by a mutual attraction, not only in the ordinary way, but in consequence of the magnets being so shaped that the inside part of the outer magnet, as well as the outside part of the inner magnet, forms angles with the direction of motion of the moving or working magnet; and, at the same time, rods of different lengths presenting themselves at the poles of the respective magnets, the attractive power is sustained over the whole stroke by successive points and successive parts of the surfaces being brought to act upon one another during the whole stroke. When the stroke in this manner has been made by one set of magnets, the current is changed, and the other set of magnets are made effective by the current passing round them in the same manner as before described. In order to prevent the current from being broken, and also to check the momentum of the magnet, the slide in the commutator F is made so long that it does not leave the conducting surface which communicates with one set of magnets until it has reached the other, communicating with the other set of magnets.

By the arrangements above described, a reciprocating motion is obtained similar to that of the common oscillating steam-engines, and it will be obvious that a motion may be obtained similar to that obtained by any of the various forms of steam-engines by suitable adaptations of beams, rods, cranks, &c. Thus it may be carried out as a single or a double-acting engine, as an ordinary beam-engine, or as a direct-action engine, according as it may be required for stationary, locomotive, or marine purposes; and in all cases its forms may be varied according to the circumstances of the case.

The difference between Hjorth's—the most ingenious magnetic engine ever produced in Europe—and that of Professor Page, is very great. The piston *a* of Page's engine is a moveable magnetised bar, and in every sense of the word is like the piston of a steam-engine, only there is no packing or cylinder covers required. The power of this engine, in proportion to the size of the battery, is very great; and it is asserted that, by increasing the battery, the power is increased in an equal, if not a greater ratio.

The present is quite different from other magnetic engines, which are stated to have always produced results greatly disproportionate with large batteries. The free length of stroke which can be given to this engine is a new and important feature, and the breaking and closing of the circuit at a distance from the magnetic pole or bar *a* is another important feature, for very feeble sparks and noise are thereby produced by the engine. There is a continuous series of

comparing the practical working of the two: but it is well known what our opinion is with respect to the steam-engine; it is as yet

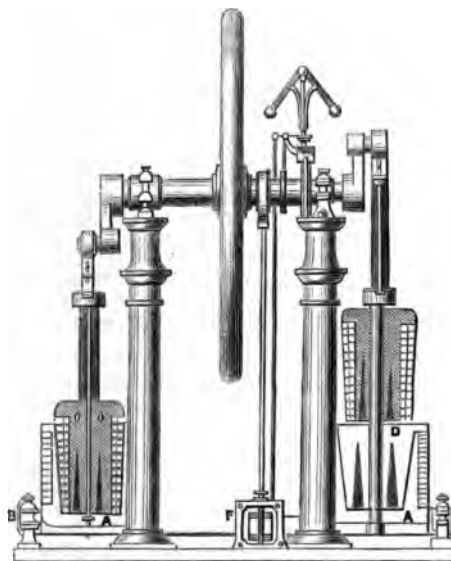


Fig. 4.

the first of motors by a long way, and will yet be greatly improved. But a great stride in advance has been made by Professor Page; he has produced the most perfect electro-magnetic engine ever built, and future improvements, if they can be made (and who doubts it?), may yet bring it to be the compact motor so desirable for aerial navigation, and without which no such art can be rendered practicable.

LOUIS NAPOLEON BONAPARTE.

LOUIS NAPOLEON BONAPARTE is the second son of Louis, sometime King of Holland, the brother of the Emperor Napoleon. He was born at Paris, on the 20th of April, 1808, in the palace of the Tuileries. With the single exception of the short-lived interesting King of Rome, he was the only one of the Bonaparte family who was born during the Empire. And for these two alone did the streets of Paris resound with the noise of cannon in honour of their birth. The ceremony of his baptism was celebrated with unusual splendour, and he can boast for his sponsors the Emperor and Empress of France. This event, however, did not take place till the year 1810. The names then given to him were Charles Louis Napoleon. On the death of his elder brother, in 1831, the Prince adopted the signature Napoleon Louis Bonaparte. This was done in compliance with the wish of Napoleon, who, constantly cherishing the hope of a continuance of his dynasty, had imperatively commanded that the head of his family should always bear the name of Napoleon. It will be necessary for our readers to remember this, that they may not be led into error from the difference of name in the same individual. On the return of Louis XVIII, the

Prince, with his father and mother, who had assumed the title of Duke and Duchess of St. Leu, retired to Bavaria. Here, however, they were not permitted to remain, and after a brief sojourn in Switzerland, which political motives compelled them to leave, the family finally settled at Rome. M. Lebas, a staunch republican, was the tutor of the Prince; and no doubt that the principles which he now entertains were inculcated in the lessons which he received during his education, and to which he has always adhered. In 1831, he and his brother joined the Italians in their unavailing struggle against the Austrians, in which the latter lost his life. Shortly after this event, he, with his mother, visited Paris incognito, and the Prince made a personal request to Louis Philippe for permission to serve in the French army, asking no rank, but

willing to join as a private soldier. The wily Monarch had no wish to have the name of Bonaparte in any way connected with his soldiery, and the request of the Prince was refused sans phrase. He then passed a short time in England, and in 1832 joined his family at Aremberg, in Switzerland. He became so great a favourite in the department where he resided, by uniform kindness to the inhabitants, and by the exertions, both personal and pecuniary, which he used to promote the education of the poor, that the Canton of Thurgau conferred on him the right of citizenship. In the meantime, the Prince, indulging his taste for military pursuits, became a most diligent student in the Academy of Thun. The consequence of these studies was the publication of a work upon Artillery, which was so highly esteemed, that



LOUIS NAPOLEON BONAPARTE.

the Government of Berne appointed him a captain in that department of the service. The year 1835 saw Donna Maria, the present Queen of Portugal, a widow, by the loss of her first husband, the Duke of Leuchtenberg. To the surprise of many, rumour, in no very measured terms, spoke of Prince Louis as a fitting person for her second husband. To such a length had a report of this kind prevailed, that the Prince thought it necessary publicly to disavow the honour conferred upon him. The reason assigned by the Prince for declining the alliance, if ever it should be offered to him, was his regard for France, which would ever prevent him from occupying any station incompatible with his being a citizen of that country. In 1836, the unsuccessful insurrection at Strasburg took place; the Prince was thrown into prison, but was afterwards released on condition that he should reside in America. The fatal illness of his mother, to whom he was deservedly and warmly attached, brought him back to Aremberg, where he arrived in time to watch over and comfort her dying moments—a consolation which Louis Philippe refused him in the case of his father. Switzerland was too near France, and the name of Napoleon too full of fears for Louis Philippe, who began to feel his unpopularity with the whole class of Republicans, to allow him to permit the Prince to continue his residence there. The arts of diplomacy were first exercised to procure his banishment; but the sturdy, liberty-loving Swiss refused to listen to so tyrannical an interference, and declined com-

pliance with the hinted wishes of the French Monarch. Art having thus failed, force must be employed; and Louis Philippe prepared an army to compel obedience to his will. Unalarmed at these preparations, the Swiss collected an army of 20,000 men to resist the aggression. The Prince, foreseeing the inevitable result of so unequal a contest, addressed a letter to the Landaman of the Canton of Thurgau, expressing his determination to quit the loved place of his asylum, rather than subject the country to all the horrors of war. England was then his chosen abode. In 1840 the landing at Boulogne took place: the Prince was taken prisoner, and condemned to perpetual imprisonment. "At least I shall die in France," was the reply of the Prince when informed of his sentence. While in confinement at Ham, the Prince passed much of his time in writing; but, during the whole of his imprisonment, he never lost the hope of being able to quit the fortress. At length, after an imprisonment of nearly six years, he executed his singular escape. The particulars of this case are, no doubt, present to the recollection of our readers. England, again, was the only sure place of refuge; and here he continued to reside till the extraordinary events concurrent upon the Revolution of 1848 called him to the head of the affairs of France.

Of his subsequent acts in his new capacity, it is not our province now to speak, our object being merely to note the antecedents of the present Dictator of France.

OUR "SUGGESTIONS FOR AN ART EXHIBITION OF ALL NATIONS."

UPON the subject of our proposition for a grand Art Exhibition of

All Nations, which appeared in the second number of "THE PEOPLE'S ILLUSTRATED JOURNAL," we have received a great number of communications, not only from artists and amateurs, but from individuals from amongst the public at large, highly approving of our suggestions, and in the most flattering manner offering co-operation. We feel much gratified by these expressions of sympathy, without which no undertaking of such magnitude, however good in intention, or zealously advocated, could hope to succeed; and we promise our numerous correspondents that their various suggestions will not be lost sight of when we come to fight the matter hand to hand with the supporters of the present shilling show-shop system. The question as to a new National Gallery must come on for decision one way or another before very long; and then will be the time to insist upon the great principles which we have ventured to propound—namely, that it should comprehend alike the works of dead and living art; that it should contain places of honour for distinguished merit; that the lists for generous rivalry should be open to all, native and foreign, upon equal terms; and lastly, that the public should be admitted at all times free. The last condition is essential to the success of our scheme, and the fulfilment of the useful purpose it has in view. Holding that a large experience of the examples of art is essential to advancement in art-manufactures, and to the improved position of all engaged in them, we see a direct national advantage, in a merely pecuniary sense, from thus throwing open the gates of the temple of genius to all comers. But this is not all, nor half the scope of the pleasant vision we would conjure up! If, as we believe of them, the amenities of art have a softening and improving influence upon the mind, filling the most vain and vacant with some hint of a generous and inspiring purpose; displacing the rank weeds of the barren waste with some flowers, however humble, of the garden or the sunny way-sides of life, whose sweet fragrance, in some unexpected and happy moment, may give life to noble impulses implanted from the beginning in our moral being, but long, long buried beneath the rust and gangrene of a rude and precarious condition; if it be a reasonable corollary to the axiom—"goodness is beautiful"—to say that the beautiful points the way to goodness; how much, let us ask, may not the Government save in gaols, and hulks, and convict stations, by establishing one grand humanising Gallery of Art?

Let them at least try the experiment; the cost will be but little. Let them but find the house-room, and the brotherhood of art will supply the furniture and the entertainment; and will supply them upon a scale of grandeur commensurate with the magnificence of the occasion. Let the artist feel that he is painting no longer for a small clique, who go the rounds of sight-seeing from habit or for fashion's sake, and whose tastes, vitiated by the indulgence of whimsical fancies, are only to be satisfied by novel and stately extravagancies,—let him know that he changes these task-masters for the millions with nothing but Nature's experience and Nature's impulse to guide them,—and he will produce works worthy of that great gospel of Nature's Truth from which the painters of old derived their inspiration for mighty works, which have survived in increasing honour; and the records of which will still survive after the materials upon which they are produced have crumbled beneath the hand of Time.

The following communication is so imperative in mood that we cannot take upon ourselves the responsibility of omitting it from our columns:—

"ERECTHEUM CLUB HOUSE, ST. JAMES'S SQUARE.
Thursday, May 13, 1852.

"SIR,—I see that you have appropriated an idea of mine in your Journal, and advertised it widely. I enclose you a copy of the letter in which I proposed the Art Exhibition—a proposition which has received the approbation of Sir Joseph Paxton and others. I trust in your honour to give the proposition to its author in your next; and so save me the unpleasant duty of calling public attention to the matter in the 'Daily News.' I am, sir, yours obediently,

"W. BLANCHARD JERROLD."

"TO THE EDITOR OF THE 'PEOPLE'S ILLUSTRATED JOURNAL.'"

We should be loth to "steal away the brains" of anybody; but Mr. Jerrold really makes a more severe accusation against us than he

perhaps imagines, when he charges us with "appropriating an idea" of his. Let us examine into the case, however, and, with the fear of the "Daily News" before our eyes, "give" the proposition which it had the honour of first promulgating to its author. We cannot print the whole letter, nor would it be of any use to do so, the prime object being the retention of the Crystal Palace, now in course of demolition. The letter is dated March 10th, and, after a very handsome appeal in favour of "the most remarkable structure of the present century," which the Exhibition Building undoubtedly, up to this date, is, the writer says:—

If it be too vast to serve solely as a winter garden (and I do not think it is), might it not in addition be subdivided into schools of design and museums of various industries?"

He then proceeds:—

I mean, in an exhibition of the science and art of all nations. Why not epitomise here all that we know of the animal, vegetable, and mineral kingdoms? Dividing the four great quarters of the building into the four great quarters of the globe, why not in one section show us the vegetation of the great continent of America, so far as we have classed it and can present specimens, grouped about the birds, beasts, and insects native to its soil? Here, too, would be the geological revelations of this great continent, together with its native minerals. Above, in the galleries, classed and arranged, those natural productions which are too minute to be exhibited except in cases—as all the insects, the beetles, the butterflies—might be shown. Around and about, all the specimens of the fine arts flourishing in America—the pictures from the artists of civilised states and those of the Aztecs and the Tezucucans—might be arranged. In the African quarter, and the Asiatic quarter, we should see forcible pictures of the natural growths of which we have been able to form only poor imaginary sketches; and in the European quarter, a noble gallery of masterpieces in art, sent by all countries, would be formed. All that is marvellous in every museum, all the hot-house growth so wonderfully guarded by Sir Joseph Paxton and others, would here be brought under one roof. The labours of the scientific of ages ago would here be placed together; Linnaeus and Cuvier would shine side by side; and here the great masters who have done glorious work in the four quarters of the globe would be brought into one focus! Down the spacious main avenues I think I see the great animals from various parts of the world tastefully grouped amidst the towering shrubs of their native neighbourhood; the stately ostrich near the tufted palm-tree; and Mr. Gould's humming-birds grouped amid native shrubs!

Such was the proposition enunciated by Mr. Jerrold in March last, and which he charges us with appropriating. We are sure that any one who has read the article in the second number of the "PEOPLE'S ILLUSTRATED JOURNAL," will see that there is nothing in common between our scheme and that of Mr. Jerrold. Our scheme was one for a Fine Art Exhibition, in a spacious building of appropriate architecture (which the Crystal Palace is not), in a central situation (which the Crystal Palace is not). We said nothing of ostriches, and humming-birds, and butterflies, and the "great animals from various parts of the world tastefully grouped amidst the towering shrubs of their native neighbourhood," which Mr. Jerrold imagines he sees. These are matters, doubtless, highly interesting and desirable in themselves, but with which, at the time of our writing, we had nothing to do.

But is Mr. Jerrold's "idea," magnificent as it is, really his own? We submit not; for we well recollect reading a pamphlet by Mr. George Wallis, Superintendent of the Textile Department of the Great Exhibition, and now Head Master of the Birmingham School of Design, published early last autumn, long before the close of the Exhibition itself, in which he proposed to appropriate the building to Art,—the very purposes since suggested by Mr. Jerrold, and others besides. In this pamphlet Mr. Wallis says:—

It is proposed, then, that this beautiful and convenient site shall, notwithstanding the grumblings of the few, be devoted to the public service, being already public property, and that the space now covered by the contributions of all nations be devoted to the purposes of a National College, and Museum of Manufactures and Industrial Art, a National Gallery, and a Winter Park or Garden. . . . It is proposed that all that portion of the Crystal Palace which may be denominated the single-story portion of the building should be devoted to the purposes of the National Gallery on the south side, and the College and Museum of Manufactures and Industrial Art on the north side; and that portion of the building which is bounded by the galleries, as indicated in the shaded portion of the plan, shall be devoted to the purposes of a Winter Park or Garden, and the exhibition of sculpture, and other suitable works of art and natural objects.

Mr. Wallis explains his plan at great length, in all its details, which include, amongst other matters, that very agreeable adjunct of a Winter Garden—a Swimming Bath. Having said so much, we now leave the matter of Mr. Jerrold's "idea" for discussion at his leisure with Mr. Wallis.

Miscellaneous Notices.

GOVERNMENT ENCOURAGEMENT OF "PRACTICAL ART."

The Board of Trade have just issued a memorandum on the principles which should govern the foundation of elementary classes, or schools for drawing and modelling, in connection with what was once known as Schools of Design, now transmogrified into a Department of Practical Art. This memorandum states, that—

"The Lords of the Committee of Privy Council for Trade having had under their consideration the report of the Select Committee of the House of Commons on the School of Design, in which the committee commend 'the important object of widely diffusing and elementary instruction throughout the country,' they give notice, that they are willing to assist, so far as the means at their disposal permit, in establishing elementary drawing classes in connection with existing schools or otherwise in various localities, with a view of diffusing a knowledge of the elementary principles of Art among all classes of the public, whether artisans, manufacturers, or consumers, and of preparing students for entering the Schools of Ornamental Art, heretofore known as Schools of Design."

As to the terms upon which this valuable assistance is to be afforded, and the nature and extent of such assistance, this important document states as follows:—

"Towards aiding the establishment of elementary classes or schools for drawing and modelling, in the advantages of which it is desirable that all classes of the community should have the opportunity of sharing, the Lords are willing—

"1. To appoint a competent master, and to guarantee the payment to him of a certain income for a fixed period, in case the fees to be derived from the instruction of the scholars should not suffice to pay the master's salary.

"2. To lend suitable ornamental drawing copies, models, coloured examples and books.

"3. To furnish samples of drawing materials, such as black boards, drawing boards, paper, slates, chalk, pencils, &c.; and to give such information as will enable the managers and scholars to obtain those materials the readiest way.

"On the following conditions:—

"1. That a committee of management be formed, either by corporate or parochial authorities, or persons residing in schools of any description, or by persons interested in the object, or that a responsible person be forward, who must engage to provide, keep clean, warm, and light a suitable room at their own liability; and to give the names of not less than twenty male or female scholars who will attend the school, if opened, for a period of not less than three months, at a payment of not less than 6d. per week for each scholar.

"2. That such committee shall be prepared, at the request of their lordships, to return the examples, lent to them; that they will collect, and account for, the fees from the students, conduct and manage the school; provide for stated and periodical visits of inspection by members of the committee; be responsible for the attendance of the master; contribute the portion, at least, of the fees received towards the salary; dismiss him for incompetency or misconduct, reporting the same to this department; engage to follow the course of instruction prescribed, and make an annual report on the proceedings of the school, on or before the 31st of October.

"3. The hours of attendance and the amount of fees to be paid by the scholars to be regulated by the committee and the general superintendent of the department of practical art, according to local circumstances.

"Communications, marked on the address 'Elementary Drawing Schools,' respecting the establishment of such schools, to be addressed 'To the Secretary of the Department of Practical Art, Marlborough House, Pall Mall, London.'"

We have hardly patience to read with calmness such paltry proposition. Here we have a set of "my lords," connected with a government which freely wasters thousands in the trumpery decorations of hideous palace, grudgingly consenting to "lend" models and patterns for copying, and to appoint a master (at some 40l. a-year perhaps), provided twenty weekly sixpences are subscribed,—squeezed out of the miserable resources of the struggling poor id would-be-industrious classes,—towards the truly insignificant undertaking. Yes, 26l. a-year, or at each rate for three months at least, must be guaranteed before "my lords" will part with the use of any of their "properties." Are they aware that the salary of their "superintendent," Mr. Cole, would make eighty such contributions? And which would be

likely to be of most use,—eighty elementary schools, with not less than twenty pupils to each, in all 1600 pupils; or one Felix Summerly, who can teach nothing, and is too old to learn?

INTENDED REMOVAL OF THE CRYSTAL PALACE TO SYDENHAM.

The Building of the Great Exhibition in Hyde Park is to be re-erected at Sydenham, at a spot not far distant from the Railway Station of that name. The bargain of sale for 70,000l. was finally ratified on the 13th instant, within the crystal sides of the building itself. The purchasers are, as we understand, a company, of which Mr. Laing, chairman of the London and Brighton Railway, is the president. The contract having been sealed in due form, twenty-five gentlemen, friends of the contracting parties, breakfasted with Messrs. Fox and Henderson. After the repast, Mr. Scott Russell made a speech, in which he drew a vivid picture of the beauties of the building when transferred to its new site, and described the intentions of the proprietors as regards its future uses. It is determined to arrange in the interior the products of every land growing under one roof, and the specimens of every art, grouped according to the best taste and skill. Casts of the most famous marbles are to be distributed through the building, and the great principles of mechanical science will be illustrated by working models. Refreshments will be abundant and cheap, and transit by rail to and from London will be included in the admission ticket. It is expected that the building will be opened, with every improvement, on the 1st of May, 1853; and hopes were expressed by Mr. Scott Russell that the Queen would honour the inauguration with her presence. The demolition of the Exhibition Building has now commenced in earnest, and will now proceed rapidly. The remainder of the effects left in the interior, including the enormous mirror of the Thames Plate Glass Company, have been sold, the latter for 255l.

THE LATE GREAT EXHIBITION.

The official presentation of the Report of Her Majesty's Commissioners for the Exhibition of 1851 took place on the 12th instant. The Report was accompanied by a set of the medals struck by the Commissioners.

The local committee of Blackburn, following the example of similar bodies at Warrington, Belfast, and other towns, has forwarded a request to the Royal Commissioners, that the sum contributed by that locality towards the Exhibition may be given up to the establishment of a local free library and museum. The answer returned is the same as that already given to the other towns previously mentioned,—namely, a refusal to comply with the request.

ROYAL ACADEMY PROFESSORSHIP OF PAINTING.

Mr. Leslie has vacated the Professorship of Painting in the Royal Academy.

A CRYSTAL PALACE IN DENMARK.

We learn from Denmark that Copenhagen is to be endowed with a Crystal Palace, after the designs of a well-known architect. The edifice will occupy a space of 4800 yards, and is destined for the exhibition of the Fine Arts and the industry of the three Scandinavian kingdoms. The funds are to be furnished by an association of Danish, Swedish, and Norwegian capitalists.

PEEL STATUES.

Two of these statues, amongst the vast number subscribed for after the death of this statesman, have been finished. One of them has actually been placed on its pedestal at Salford, where it was inaugurated on the 8th instant by Mr. Brotherton, M.P., the Mayors of Salford and Manchester, and numerous gentlemen connected with the towns and neighbourhood. The second is a gigantic figure by Behnes, cast in bronze, and intended to be erected in Leeds. The likeness in both these statues is well preserved, the latter being modelled in one of those attitudes which are familiar to "honourable members" attending the House.

THE ARCHITECTURAL SOCIETY.

The labours of this society appear to meet with public approbation, if we may judge of them from the Report of the Committee, by which it appears that the amount of receipts for the past year was 501l. 14s. 4d., whilst the expenditure had only been 460l. 9s. 9d. The work in hand has been the publication of an Architectural Encyclopedia; but the Society have just decided that their labour shall be proceeded with in the shape of a Dictionary of Explanation and Reference, with wood and lithographic illustrations, which will be completed in three years.

THE SOCIETY OF ARTS AND MECHANICS' INSTITUTES.

The plan suggested by Mr. H. Chester, for establishing relations of a mutually beneficial character between the Society of Arts and the several literary, mechanic, and scientific institutions in England, is about to be realised. The main objects of the combination are on the one hand to increase the usefulness of the latter body, by enabling them to command a superior class of lectures; and on the other, to extend the influence of the Society of Arts in the provinces, to secure for it new and valuable sources of information, and to concentrate upon one point the earliest and most authentic information of progress made in arts, manufactures, and commerce, throughout the country. This scheme is being prosecuted at this moment with great zeal, and with every prospect of success. In a few days a conference is to be held between the council of the society and delegates from the provincial bodies, over which the Marquis of Lansdowne will preside. A dinner will afterwards be given at the Freemason's Tavern, over which the Earl of Carlisle will preside.

THE PANAMA RAILWAY OPENED.

The Panama railway has been opened for traffic, and on the 15th of last March passenger trains commenced running regularly across from the Gulf to Bujo Soldado. A new city has been founded at the Gulf terminus of the road to Navy Bay, and is called Aspinwall,—the distance by rail from the opposite terminus being twenty miles. At this new city docks have been built capable of holding vessels with a draught of twenty feet of water. A large portion of the road from thence to Gatun has been laid on piles, the ground being swampy and difficult to pass. The next stations are Lion Hill and Millers, and the second terminus is called the King's station, or Bujo Soldado. Here the works are progressing rapidly, and the road will soon be in a condition for traffic as far as Agua Salud. Thence it will be carried to the crossing at San Pablo, where arrangements are already complete for the construction of a bridge 175 feet long. A road is immediately to be cleared from San Pablo to Gorgona, and when this is finished, passengers may, on landing at Aspinwall in the morning, be transported to Panama in one day and a half. The railroad between Gorgona and Panama is to be put under contract immediately.

THE EAGLES OF THE FRENCH FETE OF THE 10TH OF MAY.

The world has been favoured with a particular description of the golden eagles which were distributed by the Prince President of the French Republic on the occasion of the festivities of the 10th of May. It seems that the model from which all the birds are taken is represented as "proudly looking up to the sun, holding a ray of lightning in his claws, and his wings extended,"—"a proud attitude," says the *Constitutionnel*, "which gives the eagle an air of majesty, in which our emblems were hitherto deficient." The eagles looking at the sun must, of course, have had their heads turned away from the affairs of this week.

THE IRISH NATIONAL EXHIBITION.

Prince Albert has forwarded 100l. in aid of the funds of this exhibition. He gives this assistance, he says, inasmuch as the project is not a mere local or provincial affair, but "in the widest sense, for Ireland, a national display." Maclellan has forwarded for exhibition to his native city his picture, already so well known in London, of "The Spirit of Justice." It is already arranged that the Lord Lieutenant and Lady Eglinton are to be present at the inaugural dinner, and also at a ball to be given on the following evening. A new building for the purpose of this ball is in course of erection, and it is decided that the dresses shall be entirely from Irish manufactures. The Lord Lieutenant has expressed his determination to wear an Irish manufactured hat, specially made for the occasion, at the opening of the festive proceedings.

THE ELECTRIC TELEGRAPH IN ALGERIA.

The service of the telegraph established in Algeria in 1842 has now attained a considerable development. The line from Algiers to Tlemcen comprehends 47 posts, over a distance of 252 kilometres (345 miles), and has cost 638,629f. The lines from Milianah to Medeah, and from Orleansville to Ténès, one 84 kilometres (52½ miles), and the other 54 kilometres (34 miles), have cost 39,622f. The line from Algiers to Setif, 280 kilometres (175 miles) in length, has cost 44,003f. The works on the line from Setif to Constantina are being urged on rapidly. The cost of all the telegraphic lines now at work in Algeria has been 745,257l.



ST. GEORGE'S CHAPEL, WINDSOR.

THE Collegiate Chapel of St. George, at Windsor, is one of the most chaste and elegant specimens of pure English architecture in the country. It is of different periods of Gothic architecture. It was commenced by Edward III., but has been rebuilt and enlarged by various sovereigns, including Henry VII., of whose period the prevailing architecture of the interior is. This interior is,

indeed, very magnificent. The groining of the roof, and the vaulting of the nave, choir, aisles, and transepts, are distinguished by their elegant forms and numerous ramifications. The interior of the choir is very splendid, having the banners, &c., of the several Knights of the Garter. The splendid stained glass window is from a design of West.

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SATURDAY, MAY 29, 1852.

PRICE TWOPENCE.



MUSIC.—PAINTED BY J. SANT.

MUSIC—ITS HISTORY AND INFLUENCE.

THERE is no record of the exact period of time when music first stepped forth upon the earth to enchain the senses of man with the magic of her voice.

In the early chapters of the Bible mention is made of Jubal, the son of Lamech, who played upon the lyre. Josephus remarks, "that Jubal not improbably came Jobel,—the trumpet of jubel or lee, that large and loud instrument used in proclaiming liberty in the year of the jubilee." One of the oldest songs of which we have any record, is that which Miriam sung after the passage of the Red Sea. As we proceed with Sacred History, we find, amongst the Hebrews, the

character of poet and singer united in the same individual. David, also, not only wrote psalms and hymns, but made instruments of music. His viol had ten strings, played with a bow. The psaltery had twelve musical notes, and was played upon by the fingers. The cymbals were broad and large instruments, made of brass. With these he taught the Levites to perform hymns to God on the Sabbath-day and other festivals. At the captivity of the two tribes, the singers and the musicians were carried to Babylon, where they outlived their imprisonment and returned again with their instruments. Jesus, the son of Sirach (Eccles. i. 18), says, "that at the temple, in his days, the singers sang praises with their voice; with great variety of sounds was there made sweet melody." In the gorgeous processions of that period.

whether sacred or warlike, no doubt music took a prominent part; in every age she has spoken a language to be understood by the most barbarous and uncultivated tribes, as well as by the most civilised. In the tomb of Osymandus, near Thebes, musical instruments have been found, and it has been concluded that the Egyptians were acquainted with their use 2000 years before the birth of Christ. Pythagoras is said to have learned music from an Egyptian priest.

From the provinces of Asia Minor the different modes of Greek music are derived. Mythological accounts invariably give the praise to Greece, where the art was first acquired and perfected.

It is supposed, and very naturally, that music owes her origin to some lone shepherd, who, whilst watching his flock upon the hills, imitated with a reed the various changes of the wind as it swept with a whispering sound through the thick forests, or howled down the deep ravines, awakening with its call the tone of the torrents, and desolating the valleys with its strength. One can fancy the unutterable solace such a discovery would be to the solitary man, and how the dear ones of his homestead would gather round him when the sheep were in the fold, and listen with strange delight to the melody issuing from his Pandean pipe. A beautiful myth lies concealed in the story of Orpheus, who, by his divine music, moved mountains and stones to follow him wherever he played. Losing by death his beloved Eurydice, he followed her to the entrance of hell, when, striking a chord in unison with his feelings, its tenderness softened the stern divinities to compassion, and the thrilling tones of his voice suspended all the torments of Tartarus, and Orpheus gained consent to conduct Eurydice back to earth on one condition,—that he was not to look behind him; but in a narrow part of the gloomy road only one could proceed at a time, and, though he still played on to lull the jealous furies, he looked back to see if his beloved were safe, and lost her for ever from his want of FAITH in the power which had carried him safely through so many dangers.

In the Justinian palace is a statue of Apollo, holding a knife in one hand and a human skin in the other; and there is also preserved, by the noble family of the Marchese Sotta, of Modena, a painting of Correggio's, representing the punishment of Marsyas, to whom is attributed the invention of the flute. This famous musician, as classic history informs us, resided at Celene, a city of Phrygia, of which it was once the capital, and, as he was one day wandering alone near a lake, he observed a musical instrument, which bore some resemblance to a pipe, floating on the water; this was a flute, which had been manufactured by Minerva out of the leg-bone of a stag which she had one day found in her path, and on which she played with great skill. It is the quality of hard substances to sink in water, but this particular bone might have acquired its floating property from the divine touch of the Goddess of Wisdom, who, after all the pleasure this flute had given her, threw it away in disgust, when she saw by reflection in a glassy pool the frightful grimaces she made, and the manner her mouth was distorted when playing. As she flung it from her hand she denounced a miserable death to the person who should find it, and this denunciation was verified in the fate of the unfortunate Marsyas, who seized the instrument with much avidity, and drew forth such melodious sounds in his hymns dedicated to the immortal gods, that the Fauns, Satyrs, Nymphs, and Dryads followed him wherever he went. Puffed up with vanity at the praises which assailed him on every hand, he at last challenged Apollo to competition, who accepted the challenge on the express condition that the vanquished should be at the mercy of the vanquisher. The decision was in favour of Apollo, who had the cruelty to flay his rival alive. The tears shed for the death of poor Marsyas formed the source of a river which bears his name, which rises a short distance from the site of the ancient City of Celene, which was destroyed by an earthquake.

Poetry and painting require refined and educated minds to appreciate their respective beauties; but music declares herself in a language common to the general ear of humanity. There are but few who are impervious to her influence; and those few are half ashamed to own that they are deaf to "the voice of the charmer." It is well understood that amongst the gallery audience of a theatre are some of the keenest judges of a true melody or false intonation. Many a humble mechanic goes away from such places of amusement with the chambers of his memory well stored with the richest gems of the composer; exquisite snatches of melody, which ever and anon gush forth unbidden from his lips, lessening the fatigue of labour, and flinging around him a charm which makes his society courted by his rustic circle of neighbours when evening brings the toil of day to its conclusion. The coldest heart could scarcely remain unmoved at the beautiful ballad of "Auld Robin Gray," with its plaintive minor breathing forth the deep sorrow of the old man's wife, who no longer dares to love the object of her first affection. The tenderness of the music here expresses as much pathos as the poetry. But change the tune to "Drops of Brandy," and see what a change also passes over the faces of the listeners; those

who sat so mute and motionless, with tearful eyes, to that true love ditty, can scarcely constrain themselves; even the aged cripple loves to start up, and dance to the joyful measure.

The delirious effect which is produced by the tarantella on the Italian peasants is well known. A man, to this species of music, will dance for hours, with a succession of partners, until he falls prostrate with fatigue upon the ground. No doubt associations have much to do with all our enjoyments; and fine and energetic as is the music of our National Anthem, the words help the effect, inspiring us with love, reverence, and loyalty for the ruler of our land, by that one sentence of "God save the Queen." The "Ranz des Vaches" was prohibited from being played in the French army, when it was found to produce such dangerous consequences to the men, many of the Swiss soldiers having deserted under its influence. When they heard the strains the brought back vivid recollections of their native homes, their mountains and their peaceful chalets rose up before them, and in their mad desire to be once more with their families, they forgot the debt they owed to their commanders, and either fled or became so broken spirited that they had no longer energy to act as became men. No one can form any idea of the magic of this pastoral music, unless they hear it echoed from hill to hill amidst the sublime scenery of Switzerland.

The first writer who treated the doctrine of sounds mathematically was Euclid, who lived 227 years before Christ. The Romans received the music which they used at sacrifices and other religious ceremonies from the Etruscans; but that performed on the stage was from the Greeks; they made use of capital letters for notes. In public the music was accompanied with flutes, playing, it is supposed, simple concord supporting and heightening the voice as the subject required.

Dr. Moseley has written a most ingenious paper on Greek Music, in which he considers that the Greek chorus, like that of the Romans horn-band of the present day, might probably have been performed on the principle of a note to each person. However this may be, it is quite certain that melody to the Greeks was quite unknown. The progress of music for many centuries remained in darkness; but little knowledge of how she existed has been handed down to posterity. It was in the year 1022, that Guido, called in France Guy d'Arre, a Benedictine monk in the monastery of Pomposa, first invented the gamut as it now stands; but it was not till the beginning of the seventeenth century that time was introduced. This division of time has brought notes of great value into disuse, and the round and main are no longer known except by the musical antiquary; and it would puzzle him to understand the "Virginal Book" of Queen Elizabeth published in 1578.

To the troubadours of the fourteenth century music owes her release from the trammels of crude theories invented by the ancient composers, who veiled her sweet voice in complex and discordant sounds. Under her new masters all false doctrines were cast forth, she was made to imitate the gentle sounds of nature, and caught fresh inspirations from murmuring brooks and gushing springs, until she inundated the valleys of France with a flood of melody. The romance of that period is still hovering in many a fair damsel's soul, as she sings to her harp the song of the minstrel of Navarre, "et pleurs, et plains et soupire." To these charming *chansons* were added in time the art of measure, modulation, and grace.

It was in 1590 that a schoolmaster in Lombardy, Charles Monteverde, invented the harmony of the dominant, and was the first to use the seventh and even the ninth of the dominant; he likewise employed the minor fifth as a consonance, which had always before been used as a dissonance. Thus the tonal harmony became known, and his principles being once admitted, all its consequences were naturally deduced, and musicians arrived almost insensibly at the conclusion that only three essential harmonies were to be acknowledged, namely, that of the tonic, the dominant, and sub-dominant, which are all that should be placed on either, direct or inverted on those notes, and on those comprised in their harmony. He also introduced with composition double dissonances, which were soon succeeded by treble dissonances, and diminished and altered chords. Contemporaneous with Charles Monteverde, Viadana lived, and was the first person who formed the idea of giving to the instrumental bass a different melody to that of the vocal, to which it had hitherto strictly adhered. He further proposed to make this new bass reign through the piece, and to consider it as the basis of the whole composition, representing by figures the chord it was to carry.

These innovations excited the indignation of composers attached to the ancient rule, but experience overcame their vague and abstract reasonings, and by degrees the new method found favour in the sight; but the church, then, as now, ever alive to the loss of power by permitting alterations, retained long after the death of Monteverde its expressionless chaunts.

We shall pursue the subject in a future number.

TRIP TO THE SOUTH OF IRELAND.*

D, unlike Mrs. Dombey, "has made an effort." Emulating that country in the race for improvement, Ireland has commemorated the year 1852, as England did 1851, by a Grand Universal Exhibition; she has done so with a vigour and energy when emulation drives her into action. Received every encouragement at home, and with rare determination pursued the plan of a national exhibition, it behoves her to give her that assistance and countenance which have never been England thinks it necessary and fit.

Truly, we hope that numerous and enthusiastic visitors will be at the approaching celebration, not only to witness those beauties which will have the countenance and presence of the Queen and her Court, but to pay a just and well-merited tribute to the beauties of scene and climate which, though more appreciated than they were before, are still less celebrated than they ought to be. Let them not merely visit Cork and its exhibition, but probe further; take a glance at Bantry; admire the beauties of the lakes, fish upon the streams; enjoy, in pleasures which are a healthy cup-full to sincere admirers in its beauties; and let them temper, in the pure air of the island, the vicious miasma of our towns.

It is truly said in this very year of our century, that Ireland comparatively unknown to tourists for years after the period of the essentially English habit of summer wandering from towns to towns. Since the establishment of railways this stigma has been withdrawn, partially at least; and the lips of tourists are as often directed through Chester, Holyhead, Cork, and Killarney, as of yore they were to the beauties of the lake and Capel Curig.

The mode of reaching Cork is undoubtedly via Holyhead and the traveller happens not to be an "ancient mariner," the "salt-seas" from Bristol is more direct, yet less fresh. Besides, if you choose that way, you miss the beauties of the lake; the stately monuments and wide-built squares of Dublin; the memories aroused by sundry ruins, castles, and ivied arches; the line the road that runs between the capital and the Cove; the queen has given her name. These, together with the scenery, we propose to describe and illustrate for those who intend not merely to visit the National Irish, but are impelled by its vicinity to visit the far-famed lakes and their attendant beauties. Dublin we leave aside, known to need remark; we therefore start at once from the Great Southern and Western Railway, and speed on our way. The line is straight and level; the country at first is a level, whence the view extends, however, over the fertile fields.

You pass the round tower and village of Clondalkin; the seat and birthplace of the Sarsfields; Celbridge, where lay of Vanessa, and Carlow, the by no means ducal seat of the Duke. Naas, the residence of old Leinster's kings, their councils; the hill and bog of Allen are also distinctive; you proceed.

At Ark, late the property of the Portarlington family, serves, as it, to recall but baneful reminiscences, which are quickly by Dunamase whose peaked rock rears itself southward to the summit of which may yet be seen the still remaining the Strongbow. The flat character of the line is changed as the horizon is backed by bold and craggy mountains. Slievebloom Hills and Devil-Bit Mountains. Thurlough, the well-known synod, is passed, and the tourist reaches Cashel, the known rock first struck the eyes of Sheil, as the emblem of his native country.

At the Galtie Hills the railway diverges, one line leading to which we shall not now pursue, and the other to Mallow. Here the mountains are much closer, and Galtymore, the peaks, towers in the air at a height of 3008 feet above Knocklong and the Glen of Aherlow. Kilmallock, the Béalbeo, are left behind as you reach Mallow. From thence to Cork the route is prettily diversified.

At Station, four miles from Cork, ought not to be passed by a slight sketch of the valley in which the far-famed village, roves and castle, and its kissing-stone, are situated. "When says Mrs. Hall, in her delightful book upon the south, 'the line of its singular reputation, it is difficult to determine. The station among the ruins of the castle is also a matter of doubt, pleasant-guides humour the visitor, in respect to it, according to their capacity for climbing. He who has been dipped in the sea is presumed to have obtained in abundance the gift of that 'rage,' which makes an Irishman at ease, and unconstrained in, and under all circumstances; and he who has kissed the stone is assumed to be endowed with a fluent and persuasive tongue, though it may be associated with insincerity, the term 'being generally used to characterise words that are meant to be 'honest nor true.' The castle dates from the fifteenth century, and every step about the spot is hallowed by a legend. The climate, and the great beauty of the scene at Blarney, render it a favorite picnic resort of Cork parties. The works, station, &c., of the Great Southern and Western Company at Cork are on a large scale. It

"Illustrated Irish Tourist's Handbook," 227, Strand, 1852.

is the intention of the directors to proceed slowly with the works from Blackpool to the river Lee, that the development of the traffic may point out what further accommodation may be requisite.

Blarney Castle is the seat of Sir John Jeffries, a gentleman who has laboured unceasingly to introduce the most improved systems of agriculture, and is so eulogistically mentioned by Mr. Caird, in his late valuable work on the Agriculture of Ireland.

Here, too, is a view of the Harbour of Cork, one of the noblest in the world:—

"Cork, the shire-town of the county so called, and the second city in our kingdom in point of commercial importance, size, and number of inhabitants, is situated at the head of the estuary of 'the spreading Lee, that, like an island fair, encloseth Cork with his divided flood,' as is said in the 'Faery Queen,' or, as a more modern bard describes it:—

'As crystal its waters are pure,
Each morning they blush like a bride;
And when evening comes grey and demure,
With the softness of silver they glide.
Of salmon and gay speckled trout
It holds such a plentiful store,
That thousands are forced to leap out,
By the multitude jostled on shore.'

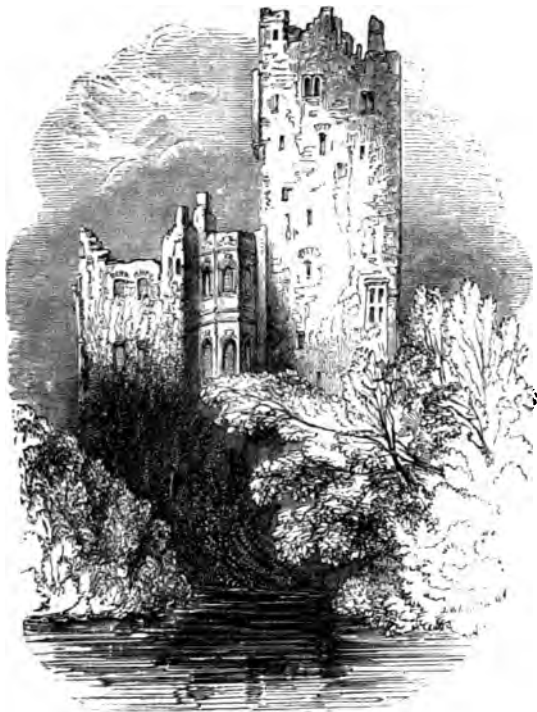
"The city is the central point in a valley of great extent and varied beauty, the Lee flowing through this valley to the sea. 'This river,' says a popular writer, 'has its source in the mountain range which separates the counties of Cork and Kerry, and issuing from the romantic lake of Gougane Barra, after a course of about forty miles, divides itself into two unequal branches one mile above the city, and again meeting, after a separation of nearly two miles, discharges itself into the ocean below Cove. The island, or rather group of islands, formed between the separation and junction of the river constitute the principal portion of the present site of Cork.

"The more ancient, or walled city, however, occupied but two out of the entire number of islands; the rest, being low and marshy, and covered over in time of flood and high tides, were for several ages unoccupied. The increase of the city in wealth and importance since the revolution, led to the reclaiming of those wastes; streets have been gradually built upon them, and the intersecting channels arched over, greatly to the improvement of the salubrity of the city; and the once numerous cluster now forms but one extensive island. It is connected with the main land by six bridges, beyond which the suburbs have, in course of time, grown to a considerable extent, and form, in point of fact, a most important portion of the city.' This is a clear exposition of the topography of the city, and leaves little to be added. From north to south it is about two miles in extent; from east to west its breadth is about one mile; the north side of the city being the widest and best built.

"Cork dates from the seventeenth century; local authority, claiming historical eminence, states that from the foundation of the first church in Cork, by its saint, Finbar, so named from his gray locks, down to the conversion of the bells of the same church into cannon, by Oliver Cromwell (in 1650), the city had undergone its full portion of the wars and calamities of the intervening periods. It is now, by general confession, the 'beautiful city called Cork,'—a proverbial phrase. It has, however, like Dublin, in its backgrounds, a dense, dark side of poverty, disease, and misery. 'To a stranger,' Mr. Fraser well says, 'the general appearance of Cork is very striking; and from many points of view it is really imposing. From the hills that limit the valley in which the principal part of the town is situated, the town itself, the river, and country immediately around, can be readily comprehended. But what appears at a distance so beautiful and imposing will not admit of a nearer survey.' The commercial greatness of Cork will be indicated to the traveller both in the city itself, and as he steams down the superb harbour. This trading prosperity is maintained almost entirely by its great provision-exports to England,—live stock, eggs, salted provisions, corn, whiskey, tanned leather, and butter. But it has various other trades, of recent origin, and among the most noticeable of these is ship-building. Without referring to the antiquities of Cork, which, however, are sufficiently plentiful for the tastes of those travellers who have not been wearied along the railway route by the details of the Ireland of the past, we will glance rapidly at the principal features. There is bustle everywhere in Cork, on the quays, and in the streets; and the appearance of the public buildings attests a thriving city. Institutions, charitable, scientific, and literary, abound; and Cork is celebrated more than any other city in Ireland, or, excepting London, in the United Kingdom, as the birthplace of persons of eminence in the world of literature and the arts. Among the natives of Cork are—Barry and Butts, painters; Murphy, the Spanish traveller; Gen. O'Leary; Miss Thompson, wife of Emperor Muley Mahomet; Wood, the antiquary; Townsend, the county historian; Dr. Maginn; Father Prout; Crofton Croker (Wilson Croker, of the 'Quarterly,' is a Galway man); the Milikens; Sheridan Knowles; Hogan, the sculptor; Hastie, the Madagascar traveller; and last, but by no means the least, Daniel Maclise, the greatest of all modern painters, whose magnificent picture of 'Alfred in the Danish Camp' is again the gem of this year's Royal Academy Exhibition. What may be termed the official residences are few, but certainly they are remarkably fine."

There are various routes from Cork to Killarney. A line of rails will next year join Mallow with the Lakes, but at present this journey is

performed by coach. From Cork, by the circuitous route of Cork and Kerry bays, Bantry and Glengarriff, you get a foretaste of the loveliest of Irish scenery. The roads, however, are hilly, and the conveyances consequently slow. Bantry Bay challenges the admiration of the world by its beauties, which have been celebrated by Titmarsh, with all the power of his pen; and by Mrs. Hall, in all the picturesqueness of her pretty style. From Bantry to Kenmare the road commands



BLARNEY CASTLE.

delightful views; from that town to Killarney, a distance of 17 miles, you get occasional glimpses at the wonders of the Lakes.

The town of Killarney is not in itself picturesque, being situate inland from the Lower Lake. It has a workhouse which is considered a model one in Ireland, and of which the constituted authorities are not a little proud. Near it has arisen a stately pile, which is the lunatic asylum. The driver of one of the mail-coaches was one day asked what building that was, alluding to the workhouse; upon which he replied; that it was the place for Irish paupers; "and what then is this other building?" said the inquirer, pointing to the lunatic asylum. "That, sir, is the asylum for the Irish landlords."

The beauties of the Lakes and their peculiarities have been sung in every metre, and in many languages. Its buglers, pipers, and guides are characters as well known as the prominent beauties of the landscape. The mixture of goats' milk and whiskey, which Killarney girls call "mountain dew," is a liquid which, when once tasted, will never be forgotten; and as for ornaments of "arbutus"—we give the pronunciation as in the vernacular—he must have great belief not to suspect that they are of more common wood.

From Killarney to the Gap of Dunloe is the most usual course of proceeding to view the beauties of the Lakes.

"The appearance of the entrance to the all-famous and world-renowned Gap gives one a fair estimate of the remainder of the ride. The road through the Gap for a portion of the way is accessible for cars, and for the remainder a pony can be employed. There are many of its bends which display the wild romantic scenery of the Gap to the utmost advantage.

"It appears literally as if this vast range of mountains, of which this most singular ravine is composed, were cleft in twain by a mighty sword: one is not surprised at its appearance having given rise to such a tradition. There are several views in the Gap, which quite come up to one's idea of sublimity; it is altogether a most singular scene, and one which completely baffles description. It looks as if it were caused

by an earthquake, or some other mighty convulsion of nature. The huge masses of rock which have rolled down the sides have the effect of conveying a very good idea of the height of the mountains on either side. The traveller is so completely hedged in that he has nothing else left to assist the judgment, unless, indeed, the numerous goats which are scattered about on the brink of the precipice; these little animals frequently get into clefts of the rock, from which they are unable to extricate themselves, and consequently perish from hunger.

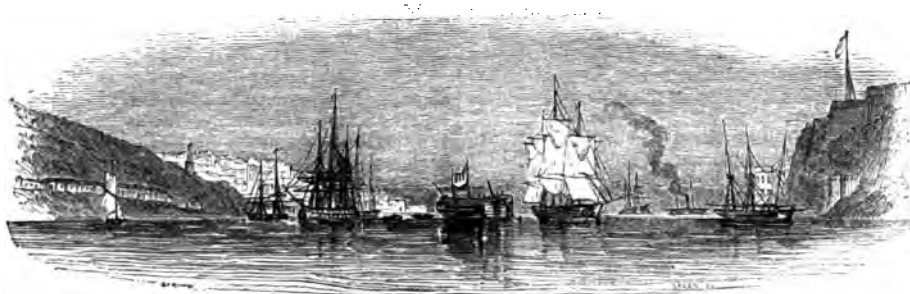
"There are several very fine echoes in the Gap, and which the guide will not fail to awaken. On coming to its termination, and reaching the summit of the road, the Black Valley, or Commeenduff Glen, breaks suddenly, and most opportunely, on the view: it is quite exhilarating, after a ride through such grand though gloomy scenery, to come upon so unexpected a treat as the Black Valley and the Upper Lake. It is this extraordinary variety and contrast, with which Killarney abounds, that affords such intense gratification. Were the Gap entirely devoid of interest, it would well repay to ascend it, in order to obtain the magnificent views which this elevation presents. In the whole range of Killarney scenery, we question whether there is any finer than the



BANTRY BAY.

views presented along this winding road, between the termination of the Gap and Lord Brandon's cottage. At the latter point, persons usually embark to view the scenery of the Lakes. This route possesses the advantage of having the current in our favour, the fall being from the Upper to the Middle and Lower Lakes; and as there is a considerable current in passing through the Old Weir Bridge, which causes some difficulty and delay in getting the boat through against the current, the tourist is saved this inconvenience by this arrangement, and is not required to leave the boat except in the event of very heavy floods. The Upper Lake, though inferior in point of size to either the Middle or Lower Lake, many persons think deserves the preference in point of scenery.

"The Upper, which drains a very large district, is principally supplied by the Galway River forming near its entrance to the lake, the celebrated Cascade of Derrycunibby. The river, flowing through the valley of Commeenduff, likewise supplies a vast volume of water, which passes through the Long



[CORK HARBOUR.]

Range into the Middle and Lower Lakes, where it is further augmented by numerous mountain streams, and also by the rivers Flesk and Dennagh. The outlet of these lakes is the river Laune, which empties itself into the sea at Dingle Bay. The Upper Lake is remarkable for the number and beauty of its islands: that to which most interest attaches is Ronayne's Island, being particularly striking.

"Having coasted round the numerous bays of the lake, we proceed to the Long Range, the entrance to which is guarded by a singular promontory, Colman's Eye. The Long Range is a circuitous channel connecting the Upper and Middle Lakes, and presenting some very beautiful scenery; but perhaps the point of most interest connected with it is the almost perpendicular cliff in which is situated the Eagle's Nest, and which is also remarkable for its extraordinary echoes, of which Weld admirably says:—

"Enchantment here appears to have resumed her reign, and those who listen are lost in amazement and delight. To enjoy the echoes

to the utmost, a number of musicians should be placed on the banks of the river, about fifty yards below the face of the cliff, while the auditors, excluded from their view, seat themselves at the opposite bank, above the cliff, behind a small rocky projection. The primary notes are quite lost; while those reverberated meet the ear increased in strength, brilliancy, and sweetness; sometimes multitudes of musicians seem playing upon instruments formed for more than mortal use, concealed in the caverns, or behind the trees, in different parts of the cliff; when a light breeze favours the delusion, it seems as if they were hovering in the air; at intervals, the treble of flutes and

clarionets, "in sweet vibrations thrilling o'er the skies," are alone heard and then, again, after a short suspension,

'The clanging horns swell their sweet winding notes,
And load the trembling air with various melody.'

"Whilst every auditor still remains in breathless admiration, it is usual to discharge a cannon from the promontory opposite the cliff, which never fails to startle, and to stun the ear, ill prepared, as it must be, for the shock, after dwelling upon the sweet melody which has preceded it. The report produces a discordant crash, as if the



LADY KENMARE'S COTTAGE.



MUCKROSS ABBEY.

whole pile of rocks were rent asunder, and the succeeding echoes resemble a tremendous peal of thunder. Twelve reverberations, and sometimes more, may be distinctly counted; and, what appears extraordinary, after the sound has been totally lost, it occasionally revives, becomes louder and louder for a few seconds, and then again dies away."

About a mile from the Eagle's Nest, you get to the Old Weir Bridge built of two arches, which confine the channel so as to render the passage after rain somewhat hazardous.

A short distance from this is the Brickeen Bridge, where there is a divided channel,—one leading to Glenna and the Lower Lake, and the other to the Middle Lake.

On the borders of the latter are the beautiful ruins of Muckross, and the picturesque remnants of Ross Castle, from whence parties boating on the lake take their departure in the skiffs that abound at the stairs.

"Passing near several islands, we proceed to the Bay of Glenna, and a more glorious scene does not exist, perhaps, in the whole vicinage of Killarney. On the banks Lady Kenmare has built a sweet little cottage *ornée*, and not far distant, one where strangers have an opportunity of testing the excellence of the Killarney salmon, the flavour of which, it is said, is much improved by being roasted with skewers made from the arbutus, the advantages of which, Mr. White thinks, are rather imaginary than real; and he ought to be a judge, from his piscatorial



EAGLE'S NEST.



ROSS ISLAND.

gout having been cultivated on the luxurious finny phenomena of the glorious waters of Connemara.

"One subject of interest remains to be noticed, viz., the far-famed stag-hunts, which usually are intended as a compliment to some distinguished visitor, and which are said to afford more exciting sport than similar exhibitions in most other places; for, in the words of Mr. Weld,—'When a stag is hunted near the lake, nothing can be more agreeably surprising than the repeated echoes, it being scarcely possible to distinguish the real clangour of the French horns, or the true cry of the dogs, from the numberless reverberations of them among the rocks and mountains.'"

We cannot more appropriately close our notice than by the description Mr. Inglis gives us of Lord Kenmare's domains bordering on the Lower Lake.

"We now come to Lord Kenmare's domain and Flesk Castle, or, as it is now commonly called, Coltsman's Castle, after the gentleman who built it. Permission to see the former may be applied for at the lodge, and Mr. Inglis says—'The domain of the Earl of Kenmare is altogether lovely. Its lakes, and mountain views, and vistas, are beyond praise. I think I have never beheld anything more captivating than the vista from the dining-room windows, when the declining sun, streaming from above the mountain tops, falls slanting on the lake, and on the bright velvet lawn that stretches to its shores.' And with this extract we close

our brief and most imperfect little sketch of the magic regions of the Lakes.

'Land of strange contrasts! Nature's fairest home,
And dreariest place of exile! This bright spot
Is blest with beauty, such as mermaid's grot
Or Dryad's haunts in legends of old Rome
Or more poetic Greece invested not,
Italian colours in the airs that come
Fresh from the free Atlantic, bathe the tops
Of purple mountains, as the heat-cloud drops
On Carran Tual's throne, while greenest hues,
Such as woo'd Claude Lorraine in midnight dreams,
Children of sunbeams and of crystal dews,
And crags, and coves, and countless gushing streams,
Winding through fern, and heath, and odorous copse,
With glorious show the raptured soul confuse.'

It is an evidence that tourists are expected, when we find a profusely illustrated guide-book just published to meet the demand of sight-seers, who will be enabled, by its means, to obtain all the information required for the most extended trip through Ireland. The book is called the "Tourist's Handbook to Ireland." In addition to numerous advantages, it contains lists of prices at hotels, &c., which, we must say, appear to be exceedingly moderate.

RECREATIONS IN GEOLOGY.

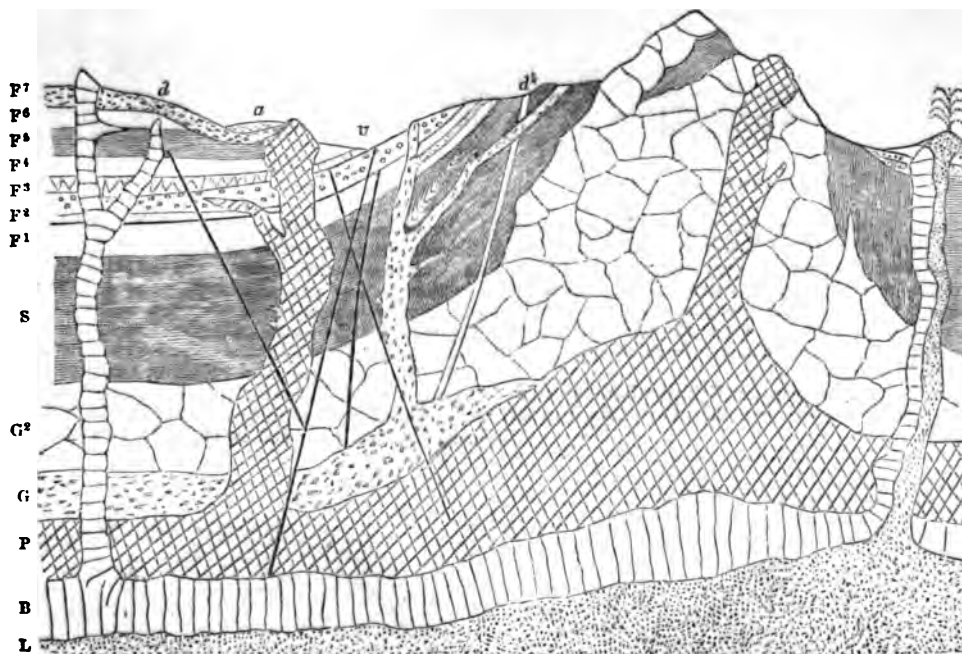
NO. II.—THE AGE OF THE EARTH.

THE stone tables of the world constitute a series of definite and unmistakable records, reaching far back into the dreamy past, and terminating with the events and changes of the present hour. From the dark and hidden layers of primitive granite which lie immediately above the all-enduring fires, to the last alluvial deposit on a river's brink, the successive planes of stony strata are as the leaves of a great book, wherein Nature has written her memorials of change in such consecutive historical order as to be at once an index of past events and a chronology of registered periods. Previous to the labours of Hutton, Wm. Smith, Werner, and the recent explorations of Lyell, Murchison, and Buckland, the revelations of the stone-book were comparatively unread, and simple phenomena recorded in its pages were made subservient to hollow theories and debasing superstitions. With those accessions of light, however, which come with each fresh march of the world, verifying the poetical maxim that

["The thoughts of men are widened by the progress of the suns,"

we have at last accomplished a correct reading of many of these records and ascertained the nature of the chronology whose events they both register and describe.

Was the world created as we now see it? Was it hurled forth from the Creator's hand to sing its song of glory in the deeps, belted, as now, with the great seas, and adorned with green garments and chaplets of eternal flowers? Or were all these zones of vegetation; those matted and shaggy forests, shading their mother from the tropic heats; these flowers, which cluster like jewels in her rich green hair; were these the result of time's developments—the adornments of a maturity which hint back to infant nakedness, and which invest our fruitful mother with such phases of growth as constitute the pain and pleasure of our own existence? It is even so. The world has grown to its perfection of fertility and beauty, and has passed, under the influence of many centuries of change, from the condition of a dreary, uninhabited chaos—a region of sterility and violence, the abode of flame and wild



THEORETIC SECTION OF THE EARTH'S CRUST, ACCORDING TO LIEUT.-COL. PORTLOCK.

L Lavas ancient and modern.
B Basalt.
P Porphyry.
G Greenstone.

G² Granite.
S Crystalline schists.
P¹ Cambrian and Silurian.
P² Devonian and Carboniferous.

P³ Magnesian limestone.
P⁴ Trias or new red.
P⁵ Jura, including lias.
P⁶ Cretaceous.
P⁷ Tertiary.

d Diluvium or drift.
a Alluvium.
U Mineral veins.
dk Dyke.

convulsion—into that of its present summer verdure and cheerful song; and, after the lapse of immeasurable ages, has exchanged the hollow roar of imprisoned flame, and the crash of earthquake and volcanic rendings, for the merry echoes of the leafy woods and the rich music of human song, and speech, and laughter. Through successive phases of growth has our mother passed; and though days and years were increments in the great cycles of her many changes, to man it has not yet been given to decide the number of the one or the magnitude of the other. The years of her lifetime he cannot tell; yet, under the guidance of a safe system of induction, he may gather some few conclusions to aid him in a conjecture as to the magnitude of the whole.

There are two assertions respecting the age of the world—one, that, in a moment of time, the entire globe was framed as it now appears, with its tables of stone already furnished with those fossil shells, and plants, and bones, which the geologist regards as evidences of former creations which have subsisted upon its surface, and which perished to make room for the present order of beings—the other, that the earth was created long anterior to the date of its present condition, before the period of tradition and even of man, and that thousands of ages elapsed between the first launching of its rounded body upon the yielding seas of space, and the first growth of living things. The first idea is held only by those who theorise before they observe; the second, by all who observe before they theorise.

In that day of lifeless wonder, when the world floated in space, a hissing ball of fluid fire, there were neither lands nor seas upon its outer shell, and only the sulphureous ripple of its red lava played upon its surface. The metallic earths, the atmosphere, and the waters, were

all suspended in a gaseous form under the subduing agency of fire, and surrounded the molten globe in the form of a dense belt of commingling vapours. Time sped, and the outer crust cooled, and the first coating of granite rock was formed. That granite now dips down below all the other strata of the earth's crust; and pierce where we may, whenever we can go deep enough to reach it, the same layer of granite underlies every other rock. The process of cooling proceeded, and the air let fall its first showers, and steaming streams hurried over the heated plains. The play of an atmosphere loaded with sulphur and sublimated metals, with the continued rush of many waters, would wear down the primitive beds of granite, carrying the abraded particles into the boiling lakes and seas, and those great beds of gneiss, mica, schist, and clay-slate would be formed, which now rest below all the other sedimentary rocks in immediate contact with the floor of the first granite. The heated state in which these were deposited is seen in their close crystalline character, and in that conversion of clay into slate which no agency but heat can effect. Upon these, during countless ages of revolution and commotion, the various beds of the clay-slate, silurian, old red sandstone, carboniferous, oolitic, cretaceous, and diluvial systems, were piled; each new layer of rock owing its origin to the destructive influences of air and water, and being dependent for its peculiar character on the nature of the materials suspended in the floods at the period of its deposit. In the clay-slate appears the dawn of animal life, the earliest of fossils being found in the slaty ridges of Snowdon. From these first creations of life we ascend through innumerable gradations of being, through the higher developments of successive strata, till we reach the era of the human race, and find

the remains of man among the latest of all deposits, as if he had been born only to-day, while prior to his birth countless ages swept away, each age being marked by its own peculiar order of beings.

A succession of events implies a succession of periods, and the nature of these events may afford some data from which to determine the length of time required for their accomplishment. Not that the actual lapse of time between the subsidence of the fire-mist and the budding of this season's flowers can be measured by man, but that an approximate result may be arrived at from a consideration of the facts which lie around us.

Simple is the Biblical narrative,—"In the beginning God created the heaven and the earth,"—and Science, kneeling in reverence before the direct revelation, now offers her collective facts in illustration and support of its teachings, adding beauty to its simplicity, and increasing the profundity of its physical suggestions. Not by a spirit of captious perversion, but by a humble acceptance of the latest fruits of his researches, does the Christian now elucidate the sacred text by the facts and theories of the physical philosopher. Not six literal days, then, but six great periods are those during which the perfection of the earth was completed, and rendered fit for man, who was born into no wilderness of naked horror, but into a fair garden of fruits and flowers, for which the previous periods of metamorphosis were but necessary steps of preparation. Biblical chronology, dating the completion of the sixth day's work—the creation of man, when the Lord breathed into his nostrils the breath of life—at six thousand years backward from hence, agrees with the latest conclusions of geology; and the conversion of the six days into six periods is a reading of the Holy Word warranted by the highest learning both before and since the age of geological investigation.

Above the ancient granite, and superimposed upon it, are more than sixty separate rocky formations, of varying thickness and of different degrees of richness in regard to their accumulation of fossils. How far down the first bed of plutonic rock reaches, no conjecture can be hazarded; but it can be pretty well ascertained that the stratified rocks in Europe are 10 miles thick; those rich in fossils reaching at least 6½ miles, while the strata in which the remains of man are found never exceed 200 feet in thickness, the human fossil itself never being found at a greater depth than 100 feet. How long may we suppose it to require for the agitations of water and air to pulverise sufficient of the plutonic substratum to furnish the first beds of crystalline limestone and mica, and the huge plates of slaty ridge which make the heights of Snowdon? Imagination recoils from the question, much less the sober faculty of estimating numbers. That water alone, in its present pure state, will abrade the flanks of granite masses, witness the Logan stone, which has been worn down into the form of a huge skittle, delicately poised, or those cheese-shaped spheroidal masses in the mountains of Silesia, which have been rounded and polished by the sleets and showers of innumerable winters. D'Aubuisson found tracts of country in Auvergne so worn that the traveller might imagine he was treading on tracts of gravel; and in a hollow way, which had been only six years blasted through granite, the rock was entirely decomposed to the depth of three inches. Those works of art which have been executed in this mother stone wear so well as to exhibit no traces of decay after the lapse of many years, as the Egyptian monuments bear witness, after the assaults of thousands of years. Yet that this has furnished the materials out of which the chief of the sedimentary strata were formed, there can be no doubt, and the question remains,—How many centuries were required for the showers to cut channels and plough furrows in it, and grind it down into great drifts of dust?

Presuming that these deposits, of which lime is the chief constituent,—as the limestone, chalk, and gypsum beds,—were deposited from the atmosphere, in which it had been previously suspended in a sublimated form by heat, there still remain huge beds of sedimentary rock, the materials of which were wholly, or partially, derived from the steady decay of the ancient granite. In Great Britain, the thickness of the fossiliferous rocks is 34,080 feet, exclusive of the deep-reaching beds of the Silurian and Cumbrian series, and estimating those rocks at the low average assigned them by Professor Phillips. Deducting from this mass 3450 feet as the entire thickness of the lime deposits, together with the thin layers of coal in the carboniferous series, we have still 30,630 feet of rock built up from the debris of the powdered granite. Suppose this to represent the average thickness of the same class of rocks all over the world—and the average is lower than the truth—and take D'Aubuisson's instance of the cutting away of the granite at the rate of 3 inches in 6 years, and we have a series of 936,120 years required for a sufficient disintegration of the granite to supply the materials of this 30,630 feet of stratified rock. This sum of near 1,000,000 years deduced from so rough a series of elements, is so far within the truth, that data more definite extend the period of the foundation of the stratified rocks back and back into the dim distance of innumerable ages, and renders the chronology one in which arithmetical numbers play no part.

The block of coal which, when warmed, splits into layers of paper-thinness, represents many seasons of successive growths of mosses and ferns; and the great seam of the Yorkshire coal field, measuring 10 feet, or that of the Dudley coal field, which is, in some places, 45 feet thick, represents, each, hundreds of years, during which successive growths of moss accumulated, to be afterwards compressed into the narrow space occupied by each seam of coal. True, the arborescent ferns would contribute more than the thickness of a sheet of paper in each season,

but the great bulk of the coal is the product of small plants, which, when compressed and compelled to yield up their moisture, would contribute but a minute portion each season of the bituminous strata of the coal fields. Estimate the deposition of coal at an inch a year, and the formation of the intermediate rocky strata at the same rate, and the carboniferous deposits passed through in Bigge's Main Colliery at Newcastle, represent the accumulations of near 1200 years.

Observations of a recent date exhibit, in a more striking as well as a more accurate manner, the immense periods of time required for the accomplishment of some of the simple phenomena of geology. Of the changes still in progress, modifying and reforming the sedimentary strata, the erosions occasioned by rivers, the deposit by rivers of the matters carried away, the elevation and depression of beaches, and the formation of terraces in inland lakes, all afford palpable illustrations of the operations which, in past time, effected so many strange revolutions of the earth's surface. In South Wales, we see gorges cut in the solid rock by the action of the ocean, more than two miles in depth; and with the rising of every continent from the world of waters, the slow drainage of the rivers has excavated long and deep ravines, requiring periods of incalculable antiquity. The American continent affords numerous striking examples of this slow wearing of the rocks by the steady passage of the passing flood,—realising, in another form, the old adage, that "constant dropping wears away the stone." On Oak Orchard Creek, and the Genesee River, between Rochester and Lake Ontario, says Professor Hitchcock, the erosions are seven miles long. On the latter river, south of Rochester, we find a cut from Mount Morris to Portage, sometimes 400 feet deep. On many of the south-western rivers of North America are canons or gorges often 250 feet deep and several miles long. Near the sources of the Missouri, there is a gorge six miles long and 1200 feet deep. Similar cuts occur on the Columbia River, hundreds of feet deep, through the hard trap rock, for hundreds of miles, between the American Falls and the Dalles. At St. Anthony's Falls, on the Mississippi, that river has worn a passage in limestone seven miles long, which distance the catarnet has receded. On the Potomac, ten miles west of Washington, the Great Falls have worn back a passage 60 to 65 feet deep, four miles; and at Battleborough and Bellows Falls, it can be proved that the Connecticut was once 700 feet above its present bed. Excepting the case of the Potomac, the most remarkable specimen of erosion in America is that of the Falls of Niagara, whose sweeping waters have cut away the rock over which they glide in a definite and unmistakeable manner. The deep gorge worn by this catarnet up to Lake Ontario is so marked in its progress that the shape of the Fall is continually changing, owing to the cutting away of the ledge and the frequent precipitation of large masses of rock. The process of erosion is estimated by Captain Basil Hall to take place at the rate of 150 feet in 40 years; and the ravine of seven miles between Queens-town and Lewiston, to which the high level of the country continues, would thus have required near 10,000 years for its formation; and at the same rate, it will require upwards of 35,000 years for the Falls to recede to Lake Erie, a distance of 25 miles. This period of 10,000 years only carries us back to the limestone which forms the bed of the stream: beneath that lie the deposits of a sufficient number of years to bring our estimate of a million years from the age of the granite within the bounds of reasonable conjecture.

In the *embouchure* of the Rhine, and many other large rivers, we see the process of rock formations now in operation. The Rhine is noted for the crystalline purity of its waters; yet in the course of a year the average quantity of matter brought down by it is equal to 146,000 cubic feet in 24 hours, which in 2000 years would form a bed of rock three feet thick and 36 miles square. The material deposited at the mouths of large rivers does not depend wholly on the sand which they wash from their upper banks and courses, but is in a great measure supplied by the millions of microscopical animalcules which, brought by the fresh water on the one hand, or by the salt water on the other, perish when they meet with water of a different quality than that to which they are fitted. The perishing of millions of these at the junction of the fresh with the salt water goes far towards the building up of such siliceous beds as those in which Ehrenberg discovered the flinty scales of creatures so small that 41,000,000,000 of them were required to form a cubic inch! In the Rhine, the Scheldt, the Mersey, the Thames, the Humber, and the Wash, the same form of deposit goes on,—so that in the mouths of all tidal rivers there are to be superadded the mechanical debris brought by the upper waters, the more rich and fertilising animal spoils which the sea thus wonderfully incorporates into the growing deltas and the banks of rising mud. Such is the origin of the rich alluvial soils of this country, formed during thousands of years by the ebb and flow of the waters,—some of them, as the flats of Essex, but recently recovered, and still maintained by artificial embankments. Observation tends to show that artificial embankments of the Thames will, before many years pass by, need to be greatly increased, owing to a slow but sure rising of the Thames waters above their ancient level. The difference between the highest tide, before the Houses of Parliament were burnt, and the highest tide of December, 1845, was ten inches, of which one inch had increased since October, 1841; so that, without the expediences resorted to for the preservation of the embankments, the low levels of Middlesex, Essex, Surrey, and Kent, are threatened with another submersion, which shall last till the formation of a fresh delta lifts up the lands again. At Plymouth, the rocks are lifting up from the water at a rate which renders their growth per-

ceptible during the experiences of individuals. At Newfoundland, the coast rises so fast above the sea-level, as by the increasing shallowness to obstruct navigation. On the banks of the Nile, the deposit left by the yearly inundation has been steadily increasing, and the elevation has been calculated at 30 feet for the last century for the provinces adjoining the river. The best instance for our present purpose, is, however, the delta now forming by the Mississippi, which carries down to its mouth 28,188,803,892 cubic feet of sediment yearly, which it deposits, or one cubic mile in five years and eighty-one days. Now, as the whole delta contains 2720 cubic miles, it must have required 14,204 years to form it in this manner. If we take this instance, or that of the Rhone, which has formed a delta two miles long and 900 feet thick within 800 years, we shall be enabled to form an estimate of the time occupied in the deposition of the entire sedimentary series, from data established by observations the most recent. Estimating the thickness of the sedimentary rocks at ten miles, the time required for their entire deposition, at the same rate as the delta now forming on the Rhone, would be 47,200 years; but the Rhone, says Professor Hitchcock, is by no means a fair representative of the time required for geological deposits. The head of Lake Lehman, where the Rhone enters, is so narrow that the detritus brought down by the river cannot spread itself out laterally. The Rhone, too, is everywhere a rapid stream, and on account of the origination of its branches from glaciers, it is always loaded with mud. This cannot be the

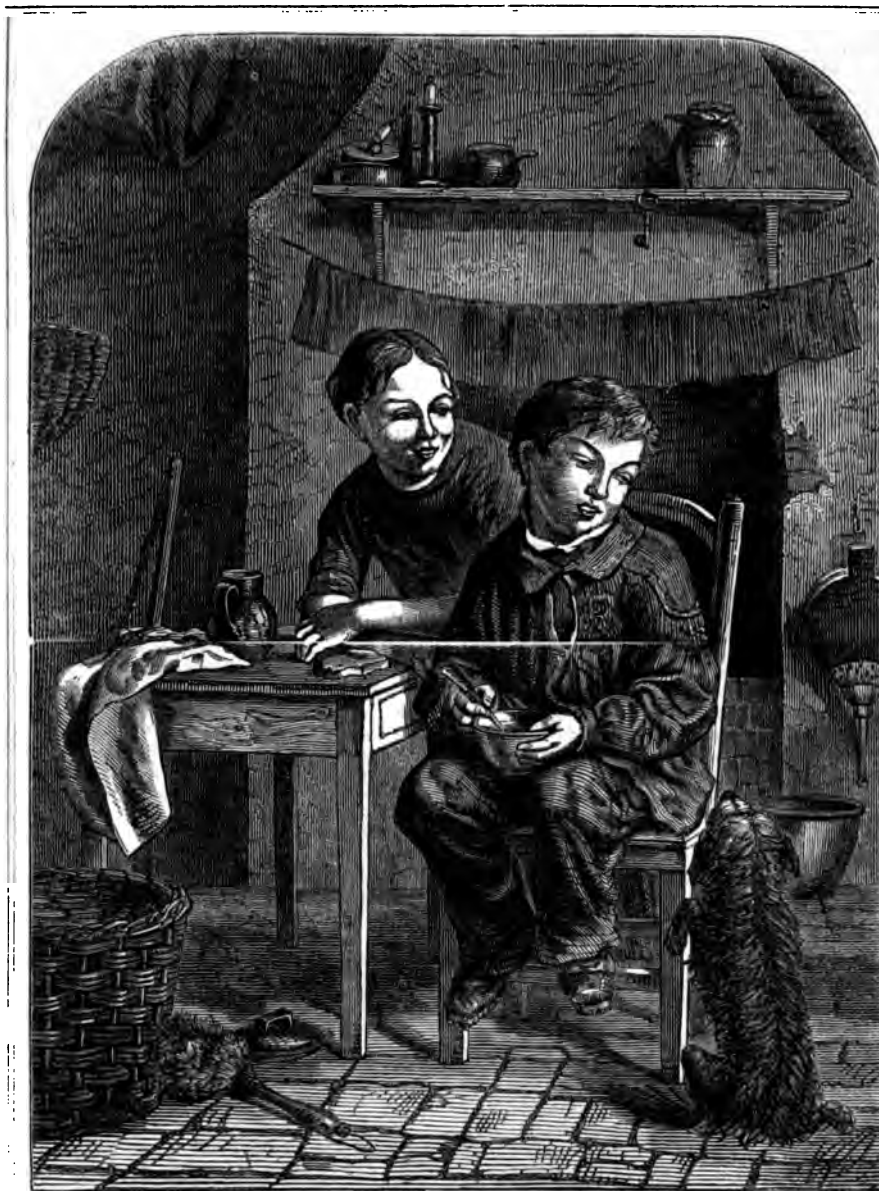
case in one in ten of other rivers, whose waters for most of the year are clear. On the other hand, taking the instance of the Mississippi, and estimating the thickness of the alluvial crust deposited in its delta at 250 feet, the time requisite for the deposit of ten miles of rock at the same rate would be 2,997,328 years.

Some of the stone beds have been formed at a quicker rate than that, and many of them immeasurably slower. The slow growth of terraces on the margins of lakes, the steady compression which the rocks undergo, and the extraordinary richness of many of them in the remains of organic life, six entire creations at the least having lived and perished, the conclusion is inevitable that 3,000,000 of years is no extravagant deduction from changes now in progress as the period intervening between the first sedimentary deposit and the birth of man. True, sudden convulsions may have changed the aspect of the earth in many spots by a process almost instantaneous; but looking at the compact texture, the multitude of fossil remains, and the repeated crumbling of one rock to furnish materials for another the sum of 3,000,000 years sinks into insignificance before the strange records of this history in stone. The mountains, like the Sphinx of old, pour oracular utterances

from their marble lips. Men have heard without understanding riddles, till geology—the Œdipus of history—solves the problem, and frees the human race from its shackles of prejudice and superstition, and builds up from the wreck of a past world a beautiful truth and wonder.

How petty this history of ours, in its brief moments of human folly, before the sweep of ages through which our globe has lived, thousands of years over which the records of humanity extend, are

here in the grove few inches rock; let bewildered concepts myriads concerns deposit strata miles in The life even whed with hairs, is dropping grains of the broad the worst may trace records, of the li descent, gy shall back to of to-day shall see her arch the mer meron—the pres to a wou count have pre him — beyond time, the lie back rious a culable But the afterall, your. If with the whose bones r the troph destructi not dating history f nity,—he forward for its f and oos The six have peri a few shreds of brio is all mains of shall neve but live o realising



— WAITING FOR A REVERSION.—UNDERHILL.

new throes of the future ages a higher condition of being, and at each fresh heart-beat, the circle of his progressing p

PICTURE ILLUSTRATIONS IN OUR PRESENT NUMBER

Mr. SAMR's picture of "Music," of which we give an Engraving on page, is free and masterly in conception, and has been greatly admired at the British Institution, where it is on exhibition. There is something of a character in the upturned face, and in the sweep of the arms; and the is remarkably massive and harmonious.

Underhill's pleasant little group, entitled "Waiting for a Reversion," engrave above, will speak for itself. The young rustic eats with such that we fear poor Tray's chance of a reversion is a poor one.

We next introduce to our readers the extremely clever and characteristic by H. Warren, of "A Slave Girl of the Sing Foo Tribe of Assam," with an interesting feature in the New Water Colour Exhibition. In this little production the peculiar features of the great Oriental families are the drapery is loosely wrapped round the body, after the fashion of the and the occupation of our subject—that of bearing water from the tubes of bamboo cane—tells of the requirements and the primitive hab race. The colour of the original is rich and truthful.



ASSAM GIRL.—H. WARREN.

PUBLIC OPINION AND THE PRESS.

NO. I.—THE FORUM AND THE PRESS.

IF we were called upon to specify the active principle, which in our opinion more particularly distinguishes the present remarkable age from any preceding one, and most comprehensively affects the destinies of generations yet unborn, we should endeavour to express it by the word "Exchange,"—exchange of material products in our commercial transactions,—exchange of thoughts and wishes in our social relations.

At present our purpose is with the moral branch of the subject; and as rapidity and economy of transport has been proved to be an important element of commercial wealth, so we propose to inquire how the facilities for the intercommunication of ideas—the fruit of modern ingenuity—has materially affected our moral and social condition.

"Quick as thought," is a familiar expression, which, after all, gives but a faint idea of the rapid working of that restless, busy organ—the brain. Those, however, who have studied the arcana of dreams, and have observed their lightning rapidity of working, are aware of the tomes upon tomes of wild adventure and wild fancy which may pass through the brain during a brief ten minutes nap, and may judge by inference of the quantity and variety of ideas which every day, both sleeping and waking, are presented to the speculum of the mind, without in many cases the individual being aware of their existence, or at least having made so slight an impression upon the brain as to leave no distinct trace of their outline the moment after their presentation. This action of the mind, applied to whatever object, material or ideal, produces that which may generally be termed "Opinion;" and it depends upon the accuracy of the perceptive faculty in the first place, and the amount and authenticity of the data available to it, how far "Opinion" will be accurate or erroneous.

The man who has nothing to guide him in the formation of "Opinion" but facts or appearances, the result of his own observation, will often fall into error, and the more intently he studies any favourite subject, with nothing but his own observations to guide him, the more deeply he will probably become involved in error. Man was intended to be a social animal; and the mind was destined as the great circle of communication between us and our fellows. When a hundred men look at the same object from different points of view, and with differently constructed faculties, the impressions produced of the truth of its nature and position must differ more or less in every case. It is only by comparing notes, weighing conflicting testimony, and cross-examining paradoxical appearances, that we arrive at a general impression which is nearer to the truth in proportion to the number and variety of observations from which it is deduced.

Thought, therefore, like the electric fluid, is inoperative for good when latent in the seat where it generates. It is only when the circle of communication is established between two or more minds that thought becomes a vital principle; and the more rapid its communication and interchange, the sooner are vain and erroneous ideas got rid of; the sooner are distinct intellects brought to bear in common and with unity of purpose upon that which has something of truth and utility in it.

In the "good old times," this exchange of thought went on very slowly, and within very limited circles; and the consequence was that a disputed point, which may now be settled, or an erroneous impression which may now be removed, in the course of a month—aye, sometimes in twenty-four hours, by the irresistible force of facts, or the concurrent opinions of society, often took a man a life to argue, and was sometimes left as a legacy of trouble to perplex and divide generations after him. Thus it was, that as a prophet is no prophet in his own country, so in those days of plodding isolated thought, a philosopher was no philosopher in his own time, and often suffered contumely, persecution, and martyrdom, for the promulgation of discoveries and doctrines, the value and truth of which have since been acknowledged by a grateful posterity. It is common to say of such men that "they were before their age;" and truly enough. But every man who invents or conceives anything new is before his age *pro tanto*; and it is only a question of time as to the rest of the world being in agreement with him. All that tends to facilitate the intercommunication of ideas, tends the more quickly to establish facts, and to shorten the interval between the sowing and the reaping time in the field of genius.

What is true in regard to matters of pure intellectual progress, is equally true and of still greater importance in various matters which concern the social relations of society. Men do wrong as frequently from misconception of what is right, as from a wilful spirit of injustice. Men often suffer wrong from ignorance of their rights, and of their power to resist; and often in the olden time did men of might rush into conflict, dragging their retainers after them to cut one another's throats upon some absurd disputed point, or some unjust claim, which a quicker exchange of ideas, a wider diffusion of facts, a larger growth

of sound principles, would have enabled or compelled them to adjust in a more peaceable manner.

Alas! the blood, the tears, the treasure which have been wasted in the wild pursuit of injustice or absurdity; alas! the heavy calendar of crime which the past will have to answer for before the tribunal of Public Opinion during endless future generations.

If a right appreciation of facts is of importance in settling moot points between individuals, how much more so, and with what stupendous results, when the millions in all parts of the world, in divers circumstances, with divers purposes and impulses, are brought into communication with each other upon any questions of common interest. The moral suffrages of multitudes are thus simultaneously elicited: truth and error; prejudice and chivalrous liberality; views of private gain and public philanthropy; every shape and shade of antagonistic and divergent feeling, are thus brought to bear upon the one point, and the result, after some struggle and more or less agitation, is an award from which there is no appeal, except to the same tribunal at some future day. Who shall at this day deny the authority of this tribunal—the tribunal of public opinion,—and who, when its authority is felt and respected, would think of resorting in the face of it to the *brutum fulmen* of war? In our domestic relations, the bully and the duellist have been driven from the scene by the unanimous consent of society, and in our political concerns is not public opinion as firmly and as powerfully declared against the duelling propensities of courts?

Speaking generally, there are two great and distinct modes by which facts or opinions may be communicated to a multitude of persons. The oldest method is that of public oratory; the more modern is that of printing. For five thousand years the Forum held its noisy and precarious sway over the *profanum vulgus*, and was the only means of eliciting the sentiments of the rulers and the governed;—four short centuries ago the Press commenced its modest and noiseless mission; for four hundred it has laboured zealously, steadily,—growing in strength and importance daily, until it has fairly superseded the authority of the Forum, addressing itself to a larger, a more general, a better informed, and consequently a more rational and less fickle audience, than those who in the ancient time mobbed a Coriolanus, or ostracised an Aristides.

We might, if it were required, enter upon some argument in support of the position which has just been suggested, of the vastly superior influence and power of the Press as compared with public oratory. It seems unnecessary, however, to do so; the fact being almost self-evident upon abstract principle, to say nothing of the overwhelming evidence of experience. It may be permitted us, however, briefly to note one or two of the more essential points in which the superiority of the press over oratory consists. First, it addresses a larger audience; that attainable by the press being unlimited in number, whilst but a few hundreds can well hear the voice of a public speaker. Secondly, it addresses an audience uninfluenced by passions invariably attendant upon popular assemblies, each exercise of the suffrage, therefore, being the result of the calm application of so many individual intelligences to the matter propounded. Thirdly, the labours of the press being as it were "matter of record," its achievements are cumulative—its course truly progressive. Fourthly, it follows necessarily from the last position that the multitude addressed through the medium of the press, is a better educated one than one which has only been addressed by means of public oratory, the principles and facts heretofore established or ascertained from time to time, being available to guide the judgment upon each subsequent occasion. Though not strictly bearing upon this part of our subject, a corollary seems to be so clearly deducible from the third position, that it may be stated here, viz: that the lights of the Press such as that in operation amongst a highly educated community, would be thrown away and misunderstood, and probably produce mischief if suddenly let in upon a community hitherto totally uneducated. The labours of the press must be slow and progressive to be successful; the Primer must precede the pamphlet; the humbler social duties of man and his industrial capabilities, must be thoroughly understood before the grander themes of constitutional regeneration and political strategy are propounded.

It is impossible to consider this point without a proud reflection upon the important position which the wielders of the pen hold with regard to the future destinies, not so much of the old world, as of the much more extensive new world, which is growing up in far distant lands across the ocean, and the founders of which, removed equally by geographical position and by circumstances and inclination from the prejudices and conflicts of the old race they have left behind them, have been in a condition to take advantage of an advanced intellectual development in the very earliest stages of their social organisation. The imagination trembles with emotion when it endeavours to contemplate the stupendous results, which, in the course of a few generations, must come of this combination of enterprise and intelligence.

In studying some of the grander problems of national history, it is impossible to overlook the important influence of the press, or to deny its attributes as a distinct element of power, more potent than even that of steam or gunpowder itself. In our own case, it would not be too much to say, that our present Queen owes her seat on the throne to the Press. The heresies of Calvin and Luther would have been weak and short-lived, but for the Press which propounded, enforced, and perpetuated their doctrines. Without its aid, we should probably never have had that solemn assertion of Protestantism, which, breaking the chains of the old feudal system, established the house of Hanover in the dominion of these realms, upon a principle recognising reciprocity of duties and

rights between the Sovereign and his subjects. And in the colonising of the new world, the labours and success of the representatives of the old dogma, and of opinion respectively, are equally remarkable. The colonists from Spain and Portugal as feudatories of the Pope—according to the old European policy—brought with them no useful element of progress to their new possessions; the Crown and the Church divided the spoil of material wealth which those regions presented, but established no principle of reproduction or civilisation. On the other hand, the original English settlements of North America were peopled by men flying from the persecution of authority at home; men who may be justly termed the apostles of opinion,—and they brought with them nothing but their true British hearts, their native enterprise and industry, together with an enlarged spirit of intelligence. And when at an unhappy moment the mother country attempted to impose a vicious and unjust policy upon the new colonies, now grown to man's estate, what was it that enabled the latter successfully to resist the wrong intended? Public Opinion, which by means of the press, collected and returned its millions of suffrages to the common centre of deliberation, and gave a confidence to those deputed to the execution, which it was impossible to resist.

And how this new moral power has grown and flourished on the virgin soil of the New World will appear from the following facts. There are fifteen daily papers in New York, the average aggregate issue of which is 130,000 copies. Two-fifths of these go into the country, and three-fifths are circulated in the town,—being at the rate of rather more than one copy for every ten inhabitants of that city. On the other hand, there are ten daily papers in London, whose average aggregate issue is 65,000 copies. Of these, one-third are retained for circulation in the capital, being at the rate only of one to every hundred inhabitants.

MRS. CAROLINE CHISHOLM.

AMONGST the benefactors of her race, and of the age in which she lives, Mrs. Caroline Chisholm, the founder of the "Family Colonisation Loan Society," deserves to hold a distinguished place.

Our portrait of this lady represents her in the act of reading one of the 240 letters which, on the average of the year, are daily addressed to her on the subject of emigration. In these times of Papal aggression, when the Roman church is found linked with enemies of freedom and of free England in every state of Europe, it is not unnatural that many should, at first sight, look with suspicion on the efforts of a Roman Catholic lady of so much talent and energy; but, fortunately, Mrs. Chisholm can appeal, in proof of her tolerant, impartial, unproselytising spirit, to a long life of action. She is the wife of a Captain Archibald Chisholm, late of the Madras army, and the mother of six children, between the ages of twelve months and sixteen years.

In 1838, Captain Chisholm, with his family, successively visited all the Australian colonies on sick leave. On his return to India, he left Mrs. Chisholm in Sydney. At that time crowds of friendless young girls were poured into the colony by the bounty emigrant ships; and those not immediately engaged had no home. "Many slept in caves and among the shrubs of the domain, rather than face the contamination of the streets." There were also a great number of unemployed mechanics and labourers supported on Government work; although 100 miles in the interior, the demand for labour was at famine wages.

Mrs. Chisholm began by applications to the Governor. Energetically, perseveringly, most annoyingly she repeated, "Give me house room for them, and the rations you now give, and I will gratuitously give up my time to protect them and place them in situations."

At length, in the latter part of 1841, Sir George Gipps, the Governor, gave up part of the immigrant barrack, a low wooden building 14 feet square, infested with rats, for a female home. To protect and control the girls, it was necessary Mrs. Chisholm should live on the premises. In this place she lived two years, except when travelling through the bush. She established a registry-office and a system of written engagement, sent out circulars to the interior, learned where servants were wanted, and endeavoured to send them under the charge of trustworthy people; the girls, fearful, refused to go. She took them herself, and established sixteen branch committees and depot "homes." Among thriving settlers, who had never had a servant before, she created a new demand for female emigration. The girls married these people's sons; girls she took up the country destitute came to her to engage servants for themselves, and wrote home for their friends and relatives.

While dealing with the young women she came in contact with their parents and brothers. She extended her system to them. At her own risk she hired steam-boats, lent men money to travel to their situations in the bush, to be repaid by the masters; and out of 1200*l.* so lent, only lost 16*l.* She formed caravans, and with from three to eleven wagons, marched through the bush, trusting to the hospitality of the squatters and settlers to feed her army—often exceeding two hundred souls. With a saddle-horse and a light tandem cart, she rode through districts where there were no roads, fixing men and women in situations and collecting provisions for the remainder. At night she taught the raw emigrants how to make a camp and cook supper in the open air, and then retired to a covered cart, with a few of the children, to sleep. She was nobly seconded by the settlers.

Between 1841 and 1845, Mrs. Chisholm provided for eleven thousand individuals, young and old, removed the distress previously crowded into Sydney, and created a new demand for labour which has never

since ceased. At the same time she collected upwards of six hundred biographies, showing the progress of the labouring classes, which she named "Voluntary Information of the People of New South Wales, taken down in their dwellings, by the roadside, and in the ploughed field." Welcomed by and known to all, they invariably related the history of their rise and progress to independence with readiness and truthfulness.

Mrs. Chisholm gave important evidence on colonisation before committees of the Legislative Council of New South Wales in 1843, 1844, and 1845. Her system of depots and local committees is still in operation.

In 1846, when on the point of leaving the colony, a committee, which included eight members of the Legislative Council and the principal magistrates and landowners, without distinction of religion or politics, raised a subscription of 150*l.* for a testimonial to Mrs. Chisholm, and presented an address, in which, after thanking her for "her zealous exertions on behalf of the emigrant population," they say, "The extraordinary efforts which you have made have been dictated by a spirit of most enlightened benevolence. In the establishment of an



MRS. CHISHOLM.

emigrants' home, in procuring the advantageous settlement of great numbers of the emigrant population in the interior as servants and occupants of small farms, in the large collection of statistical facts and voluntary information derived from the labouring classes, your exertions have proved of singular benefit to the community." Dr. Lang subscribed to this testimonial.

Mrs. Chisholm accepted the testimonial "to expend it in further promoting emigration, by restoring wives to their husbands, and children to their parents;" and added, "It is my intention, if supported by your co-operation, to attempt more than I have hitherto performed."

At the close of 1846 she landed in England with Captain Chisholm, almost as unknown as when she landed in Sydney, among the higher classes, but charged with hundreds of commissions from humble colonists, to forward to them their parents, their wives, their children—to become, in fact, an unpaid emigration agent on the largest scale.

Between 1846 and 1850, Mrs. Chisholm quietly but energetically pursued her work, fighting bravely against both neglect and detraction; in the latter year she brought out her well-matured Family Colonisation Loan Society, under the auspices of the Earl of Shaftesbury and the Right Hon. Sidney Herbert. On this self-supporting plan one thousand souls have been enabled to emigrate. That it is a sound plan, is best proved by the fact that the City merchants engaged in the Australian trade, deeply interested in stimulating emigration to those colonies, after serious deliberation, have decided that, in a commercial point of view, their best mode of obtaining value for a large sum they are engaged in raising (upwards of 10,000*l.*) will be to expend it on the plan and under the personal direction of Mrs. Chisholm. In fact, she is not merely a writer or a talker, although she talks and writes with vigour, humour, and pathos, but an actual worker, whose theories of colonisation are all founded on facts within her own experience. In the words of Mr. S. Sidney, "The distinguishing characteristic of Mrs. Chisholm is philanthropy, extending to all classes and to all sects, directed by a degree of common sense that almost amounts to genius, and united with an energy, a zeal, an untiring perseverance, that renders nothing she undertakes impossible."

THEORETICAL AND PRACTICAL ESSAYS ON ARCHITECTURE.

NO. I.—ON THE ELEMENTS, CHARACTERISTICS, AND PRINCIPLES OF THE GREEK STYLE OF ARCHITECTURE.

"Art and literature adorn the memory of a people when their dominion is no more. The fragments of the beautiful, that lie scattered over a nation's grave, win, from eras that follow, affection and admiration."

IN introducing the subject of architecture to the notice of our readers, we wish it to be clearly understood, that in deeming it necessary to go no farther back than the Greeks, it is from no want of respect for the works of anterior nations, who might have paved the way to the invention and accomplishment of those glorious productions executed by the Greeks on the Acropolis at Athens, and other localities of the Grecian republic; but from the feeling that as the Greek artists brought the architectural and plastic arts to the highest degree of perfection, their works may be adopted as the standards of ideal beauty.

Tracing the history of art subsequently to the deluge, the mind naturally rests upon Babylon and Nineveh, the two most celebrated cities of the ancient world (erected soon after that remarkable event), as containing the germs of what was afterwards effected in Egypt and elsewhere; but in gathering information on this head, we become not a little perplexed, for want of sufficient data on which to base even probable conjectures. Although Babylon is somewhat particularly described by Herodotus, who lived 480 years before Christ, and was a personal observer of its remains, we still find that we cannot place the most implicit reliance on his descriptions; for this city had been taken by Cyrus, upwards of half a century previous to this time, and the fact of its having been principally composed of brick compositions and gypsum, would probably occasion it to present, at the time it was visited by Herodotus, little more than a confused heap of undefined ruins.

The same doubt and uncertainty must also necessarily attach itself as to the precise architectural and decorative characteristics of the great capital of the Assyrian Empire; for, on reference to the excavated remains that have recently been brought to light, on the supposed site of the ancient Nineveh, it may be remarked that they are most assuredly not remnants of the edifices belonging to the first Assyrian empire, of Ashur, Ninus, and Semiramis; for a careful examination of them most clearly establishes the conviction, that they belong to a period of sculptured art far in advance even of some of the examples of Egypt, which were executed much later than the ancient Nineveh founded by Ashur. Further, as a still stronger proof of our position, it will be found that the sculptures have all the characteristics of Persian art, and the most probable supposition is, that these Ninevehian sculptures, brought to light by the enterprising exertions of Mr. Layard, are the remnants of palaces erected by Cyrus, Cambyses, Darius, and Xerxes. However interesting, therefore, they may be in an antiquarian and archæological point of view, they are of very little value as forming precedents for artistic imitation. With these few observations in explanation of our reasons for omitting all earlier fields of enquiry, and taking Greece as the starting point of our disquisitions, we now proceed to enter boldly upon our subject.

"ATHENS the eye of Greece, mother of arts!" such is the language of the immortal bard, and such is the truth; for it was there, under the munificent patronage of Pericles, that the great Phidias and his contemporaries in the rebuilding of the renowned city, executed those glorious, exalted, and unrivalled productions, that have served as standards of beauty to succeeding generations.

In commencing our explanatory matter, it will be first deemed advisable to state, that the general elementary forms of Greek architecture are derived from simple timber hut constructions, and

are, therefore, essentially horizontal in their character, as opposed to Gothic architecture, which is composed principally of vertical combinations. Taking the Greek temple in its trans-

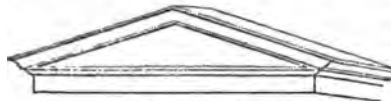


Fig. 1.—OBTUSE ANGLE.

verse section, we find that its pediment partakes of the proportion of the obtuse-angled triangle, in contrast with that of the Gothic, which is either equilateral or acute angled; this difference will, however, be more clearly explained by a reference to the annexed diagrams:—Fig. 1, exhibiting the proportion of the Greek pediment; whilst figs. 2 and 3 show those of the Gothic pediment or gable, in two different periods of the style, in which the general proportions of the equilateral and isosceles triangles were adopted.

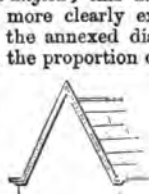


Fig. 2.—EQUILATERAL.



Fig. 3.—ACUTE ANGLE.

It will be observed, that in the Greek example the moulding is carried along the base line of the triangle, which is not the case in the mediæval examples.

Thus far we have endeavoured to explain one of the great leading characteristics and elements of our subject; it will now become necessary and highly important to advert to another feature that pervades true Grecian structures, which is, that the forms of most of their curved mouldings, with the exception of some of the bases of their columns, &c., are derived from the sections of the cone, and not from the circle, which is the case with Roman mouldings, &c., and hence the great superiority of the former in grace and elegance of contour. This, however, will be more clearly elucidated by a reference to the following diagrams:—



Fig. 4.

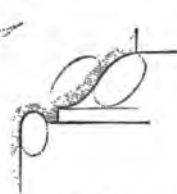


Fig. 5.

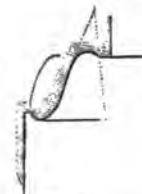


Fig. 6.

Fig. 4 shows the application of the parabola to the echinus of the capital of the columns in the Parthenon at Athens. Fig. 5 shows the ordinary cyma recta, which usually terminates Greek cornices, the form of which is derived from the ellipse; and fig. 6 is a combination of the ellipse and parabola in the formation of the quirked cyma recta of the Greeks.

Having illustrated some of the more general elements and characteristics we shall now proceed to describe the three orders of Greek architecture, which are denominated severally the DORIC, IONIC, and CORINTHIAN; and in briefly adverting to their origin, we shall dismiss the frivolous and nonsensical tales of Vitruvius, and proceed to show their strictly oriental origin from Egyptian or Indian sources, as an examination of the following diagrams will illustrate:—



Fig. 7.—EGYPTIAN.



Fig. 8.—GREEK DORIC.

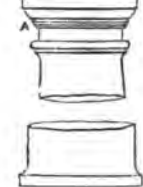


Fig. 9.—ROMAN DORIC.

One of the earliest developments of a capital for a column, fig. 7, is taken from an Egyptian authority of great antiquity, and seems very clearly to indicate the origin of both the Greek and Roman Doric, particularly the latter, which will be readily perceived by the slightest comparison with fig. 9, which is taken from the Theatre of Marcellus at Rome, wherein it may be remarked, that the annulets, shown at A, are precisely the same as those of the Egyptian example, being composed of small fillets; and by the addition of the ovolo, immediately underneath the plain face of the abacus, with the further embellishment of the same by the small ogee and fillet at the top, the composition of the Roman Doric capital is effected. The square plain abacus, the absence of base to the column, which rests on a single step, the annulets and general features, clearly indicate the Egyptian origin of fig. 8, which is taken from the Doric Temple of Minerva, at Athens. The substitution of the beautiful echinus for the square capping of the Egyptian example, and the channellings of the shaft are Greek improvements, showing in an eminent degree the consummate inventive power and taste of that extraordinary people.

In illustration of the origin of the next order in succession, viz., the IONIC, we must direct the attention of the reader to fig. 10, a very curious and interesting precedent, taken from one of the Viminians of the ancient



Fig. 10.—HINDOO.



Fig. 11.—GREEK IONIC.



Fig. 12.—ROMAN IONIC.

Hindoos. No doubt there are examples in Egyptian remains which indicate the origin of the Ionic capital, but probably not so clearly as is here shown, in respect of its most distinguishing feature, namely, the volute, or voluta; for, on comparing the Hindoo specimen with that of the Greek, fig. 11, taken from the beautiful little temple on the river Ilissus, near Athens, the similarity will be obvious to the most casual observer. By removing the square portion, with the patera in the

centre and the extraneous drops at the lower portions of the volutes, and slightly modifying the abacus,—we produce the graceful and chaste capital, which has been bequeathed to us by the Greek artist.

Fig. 12 is an example of a Roman Ionic capital taken from the Theatre of Marcellus at Rome, the inferiority of which to fig. 11 will be evident on inspection.

The next and last order, in the series forming the basis of Greek Architecture, is the CORINTHIAN, which in its full development at the hands

æsthetic science to the very *ne plus ultra* point of perfection. The most striking feature in it is the capital, which, whether it be viewed as regards the ingenuity of its arrangement, the graceful form of its leaves, volutes, and abacus, or the consummately delicate workmanship bestowed upon it, as displayed in the remains of the monument of Lysicrates at Athens, the Pantheon and Temple of Jupiter Stator at Rome, calls forth an enthusiastic burst of admiration, and remains alone and unrivalled, leaving the future Designer, Modeller, or Carver in hopeless despair of doing anything to surpass it.

Taking the liberty, as we have previously observed, of rejecting the whimsical stories of Vitruvius as to the origin of the orders of architecture, we proceed to lay before our readers what we consider to be the most probable origin of the Corinthian order, contending that it is of Egyptian extraction.

The study of figs. 13, 14, 15, all taken from Egyptian works, it is conceived, could by no very great stretch of the imagination suggest the accomplishment of a capital such as that shown at fig. 16, which is a *chef-d'œuvre* of the Corinthian order, taken from the admirable monument of Lysicrates at Athens above alluded to.



Fig. 13.—EGYPTIAN.



Fig. 14.—EGYPTIAN.



Fig. 15.—EGYPTIAN.



Fig. 16.—CORINTHIAN.

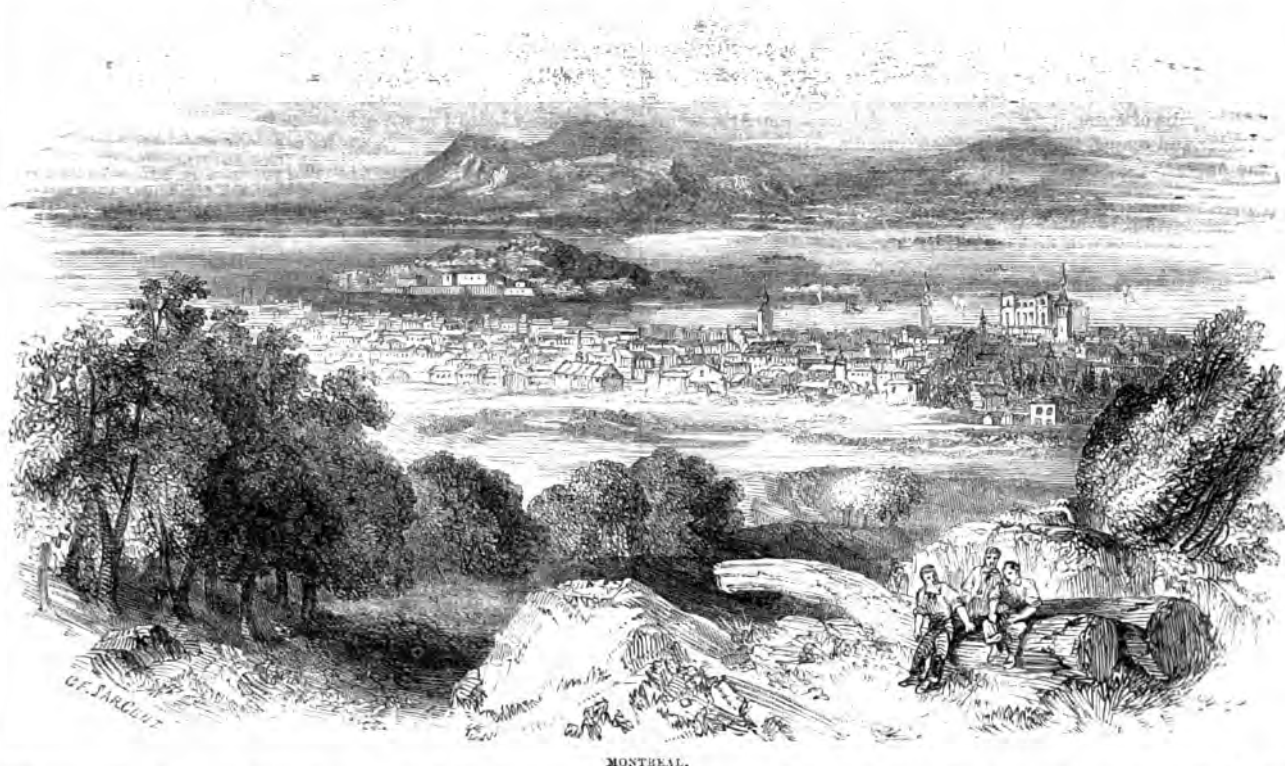
of the most eminent Greek and Roman masters, carried the resources of

CANADA.*

WE resume our observations upon this subject. The result of the notice gained by her husband's services, and Mrs. Moodie's poetical effusions, was a material change in their personal prospects. After the dis-

banding of the regiments, a letter arrived from the Governor's secretary, offering Mr. Moodie the situation of the sheriff of the V— district.

At this point we may return with advantage to the volumes of Sir



MONTREAL.

R. Bonnycastle. The seat of the Government of Canada was removed by Lord Sydenham from Toronto to Kingston, being nearer to the Lower Province by 180 miles, and less subject to invasion. There was an obvious policy in this; the new situation enabled the Governor better to maintain the balance of power between the French and British Canadians. In 1851 the seat of Government was transferred to Quebec. The future prospects of the country, as we have stated, are most cheering. Its internal commerce is rapidly increasing, and the lake ports of Ontario are becoming yearly of more importance. In 1830, says Sir R. Bonnycastle, the traffic on Lake Ontario was confined to York, Kingston, and Niagara; whilst Coburg was only starting, as a port, into existence. Numerous ports now exist,—some driving a large trade with the interior. Sailing or steamboat vessels penetrate

* "Canada, as it was, is, and may be." By Lieut.-Col. Sir Richard H. Bonnycastle, Royal Engineers. With considerable additions, and an Account of Recent Transactions. By Sir Jas. Edward Alexander, K.L.S., &c. 2 vols. COLBURN.

"Roughing it in the Bush; or, Life in Canada." By Susanna Moodie. BENTLEY. (Previous notice in No. 3.)

into every available spot along the shore, which, however, is deficient of harbourage,—the Newcastle district being the worst provided in this respect. But such have been the silent strides of commerce, that places unknown on the map yield a revenue to the Custom-house. All this is significant of a great deal of enterprise. The revenue from the great Mediterranean fresh-water seas of Canada is steadily augmenting; the porters are doing an extensive business, and the towns favourably situated are rapidly increasing their population. When the St. Lawrence and Welland Canals and the Ottawa navigation are completely finished, the carrying trade must become very extensive. The expenses of transshipment being avoided, the Americans on Lake Michigan and Erie will prefer the cheaper mode of sending down flour, peltries, ashes, staves, &c., by the Great Welland Canal, to the tedious and dearer navigation of that of Erie. The Welland Canal, in Sir R. Bonnycastle's opinion, is the most important of all to Canada, since it opens out the whole of Western America, from the Columbia on the Pacific, and the mouths of the Mississippi, to the Hudson's Bay territory and the

fur-hunting countries of the North. The great wheat-growing western states also find a new road to the ocean by it; and all the best parts of Canada, its wheat, its hemp, its flax, and its tobacco-grounds, are immediately in its vicinity.

In proof of the general statement, the fact may be recorded that the tolls on the Welland Canal amounted, in 1841 and 1842, to 20,000*l.* a year,—the canal being then in a wretched and unfinished state, fit for barges only. What may not be hoped from it, when properly finished as a ship-canal? The whole produce of the western counties would infallibly go down it. With a judicious tariff between the state of New York and Canada, all the European and Asiatic merchandise used in Western America would be conveyed along its line.

The obvious gain by a ship-canal, such as Welland, in even sending goods from the West, only as far as Oswego, is clear. But if the Americans obtain a transit trade to the ocean without unshipping, Montreal and Boston might become the emporium of the West, instead of New York. Through the heart of America, indeed, nature has provided a water-road for England. "The trading path," says Sir R. Bonnycastle, "is nearly opened which leads to the slumbering waters of the Pacific and the Golden Cathay."

Our author's work contains numerous tabular statements, all proving the progress of the country in commercial prosperity, and the inexhaustible nature of its means, together with the infinite value of the Canadas to the mother-country. It is also his opinion that "the French Canadians should be admitted at once, manfully and for ever, to an equal share in the business, and management of the business, of Canada." He adds, that "the future of Canada is bright; and the general polity of the colonial empire is now so clearly marked, that Canada will neither 'be lost nor given away,' and every friend to Britain looks anxiously to a permanently settled system of emigration thither, on a large and well-conducted scale." As Canada must remain essentially a British province, the central dominion of English laws and English feeling in North America, the day, it is prophesied, is not far distant when the five provinces will be united, "with Quebec for the metropolis of a country which must extend from the Atlantic to the Pacific, and control the destinies of one grand and powerful division of the Anglo-Saxon race."

Mrs. Moodie, too, in her poetic raptures, indulges her privileges as a *vates* :—

"Canada, the blest—the free!
With prophetic glance, I see
Visions of thy future glory—

Even now thy sons inherit
All thy British Mother's spirit.
Ah! no child of bondage thou;
With her blessing on thy brow,
And her deathless, old renown,
Circled thee with freedom's crown,
And her love within thy heart,
Well thou may'st perform thy part,
And to coming years proclaim
Thou art worthy of her name.

By thy winter's stainless snow,
Starry heavens of purer glow,
Glorious summers, fervid, bright,
Basking in one blaze of light;
By thy fair, salubrious clime;
By thy scenery sublime;
By thy mountains, streams, and woods;
By thy everlasting floods;
If greatness dwells beneath the skies,
Thou to greatness shalt arise."

Her own memorials, moreover, contain abundant illustration of Canadian prosperity and improvement. Seventeen years, she says, have made great difference in the state of society. The almost entire absence of mendicity from Canada is also a gratifying circumstance; there are, indeed, no native beggars. Her objects of charity are imported; nor are these suffered long to want food or clothing. "The Canadians are a truly charitable people; no person in distress is driven with harsh and cruel language from their doors; they not only generously relieve the wants of suffering strangers cast upon their bounty, but they nurse them in sickness, and use every means in their power to procure them employment. The number of orphan children yearly adopted by wealthy Canadians, and treated in every respect as their own, is almost incredible."

Mr. Moodie gives the same testimony, and altogether in a more favourable strain and milder tone than his wife. The day after his arrival at the village of C—, he found it consisting only of one long street parallel with the shore of the lake, and the houses, with very few exceptions, were built of wood;—but they were all finished, painted, neat, showy, and elegant. A cedar-swamp was in process of clearing. The soil looked black and rich, but the water stood in pools.

The roots of the trees formed a vast network, and their branches and foliage were intermingled in wild confusion. The task seemed hopeless. The men employed in the clearing process, with their faces begrimed with charcoal, were more like negroes than white men. A few years passed, and Mr. Moodie revisited the scene. The dreadful cedar-swamp had disappeared. A few years more, and it was covered with stone and brick houses. One portion was occupied by a large manufactory, five or six stories high, with steam engines, spinning jennies, and all the machinery for working up the wool of the country into every description of clothing. Mr. Moodie winds up his account of this change with the exclamation—"This is Civilisation! This is Freedom!"

"Some men, like greedy monsters of the deep,
Still prey upon their kind."

And of such is the Canadian Land-jobber, respecting whom the emigrant should be on his guard. Let him be careful lest he be made the victim of a decoy-duck instantly on his arrival. The Land-jobber, described in the pages before us, was a store-keeper who got the farmers into his debt, and then took mortgages on their farms. By this means, instead of merely recovering the money owing to him by the usual process of law, he was enabled, by threatening to foreclose the mortgages, to compel them to sell their farms nearly on his own terms, whenever he had an opportunity of re-selling them. The heart of this man was case-hardened, and his conscience like gum-elastic. His well-tutored countenance betrayed not his mental secret. From this man the probability was that the new settler would purchase a worn-out farm, almost sterile. The North American, indeed, is described as habitually paying a certain mock homage to a wealthy immigrant, secretly looking upon him as a well-fledged goose who has come to America to be plucked. But with a poor and industrious mechanic, farmer, or labourer, arriving without pretensions of any kind, their conduct is entirely different; him they help to the utmost.

The following sensible remarks of Mr. Moodie deserve to be quoted *in extenso* :—

"A colony bears the same relation to an old settled country that a grammar does to a language. In a colony society is seen in its first elements, the country itself is in its modest and simplest form. The colonist knows them in this primitive state and watches their progress step by step. In this manner he acquires an intimate knowledge of the philosophy of improvement, which is almost unattainable by an individual who has lived from his childhood in a highly-complex and artificial state of society, where everything around him was formed and arranged long before he came into the world; he sees the *effects*; the *causes* existed long before his time. The colonist has to create—he has to draw on his own stock of ideas, and to rouse up all his latent energies to meet all his wants in his new position. Thus his thinking principle is strengthened, and he is more energetic when a moderate share of education is added to these advantages—for they are advantages in one sense; he becomes a superior being."

With the statistical fact before us that there is, and will continue to be, an average amount of surplus labour in England, correct ideas on the subject of emigration are of paramount importance. The mendicant and the unemployed in their native land are its shame and sorrow; but the beggar and the idle by the force of circumstances, once removed to Canada, become respectable members of a new state of society. At once they feel themselves men; and conceiving self-esteem, win for themselves character, by conduct which in its meanest phase must be heroic. It is the duty of the public and the government, for this purpose, to promote emigration, and to devise the best plan of proceeding in the desirable task. Less, we think, should be left to individual enterprise; though we must allow that the test of capacity and success is more stringently applied in such instances than they would be by the more orderly arrangement of colonising groups. By the formation of such bodies much individual suffering may be prevented, and a refined state of society introduced into its very elements; thus superseding the grossness and vice which have to be eliminated as the social system improves. But we must not forget, that the gross and the vicious, are even they, whom the mother country would gladly send forth, as the constituent elements of a distant colony. But it is evident there are two classes of emigrants, perhaps more;—a different and appropriate system ought to be devised for each. Up to the present time all has been left to chance and private speculation. A well-conducted scheme would remove to a great extent the increasing amount of pauperism and crime at home, and convert it at once into industry and virtue, thus freeing the mother country of the dangerous seeds of revolution and discontent, and transferring its victims, as so much living capital, into another and better fund bearing interest a hundred-fold. The productive classes especially should lay these considerations to heart—and to them we say emphatically, "Up and be doing."

Miscellaneous Notices.

EXHIBITION OF THE DEPARTMENT OF PRACTICAL ART, MARLBOROUGH HOUSE.

THE first exhibition of the Department of Practical Art was opened to the public, on the 18th inst., at Marlborough House. It was visited by the Queen and Prince Albert on the previous day, when both those illustrious personages expressed great interest in the purposes of the institution, and her Majesty gave practical evidence of that kind feeling by sending in, after her return to Buckingham Palace, some remarkably fine specimens of lace from the royal wardrobe,—an article in which she had remarked the collection to be deficient. Whilst such generous sympathies engage the highest in the land in the cause of industry and art, we need have no fear for the future, which can only be one of progress and ameliorated position for our working classes.

Undoubtedly many difficulties have beset the steps of our pioneers in art-culture, and many difficulties, and as many prejudices have yet to be overcome, before the useful objects with which "Schools of Design" were established amongst us, sixteen years ago, can be fully realised. The great defect in the system hitherto has been the want of a principle of action and of a presiding mind, richly stored alike with native thought as with the experience of the best examples, to direct the energies of the pupils. Copyism had prevailed amongst us to alarming extent already; the creative faculty was that which required most to be excited,—or, in default of that, at least the genius for respectfully "translating" the best established models of others' creation. And perhaps, after all, "translating" has been the extent of achievement in any one age; and art-genius from time to time has been evoked not so much by creating something new, as by converting to new purposes that which already existed. But, even admitting this to be the case, a very notable distinction is to be observed between the hand-gift of mere copying and the genius for appropriation and assimilation.

In the latter important element of advancement, we have as yet done absolutely nothing; and we may expect to do little or nothing for some time to come. The regulations laid down by the Department of Practical Art, which has replaced the Schools of Design, appear to point to copying, and to copying only, as the secret to success,—and the bestowal of 2000*l.* by the Board of Trade for the purpose of purchasing specimens of various branches of manufacture from the late Great Exhibition, to form the nucleus of a Museum of Art-Manufactures, and the important part which these articles make in this year's display of the Department of Practical Art, would lead one to apprehend that in all points of device and tasteful appliance we are considered mere pensioners upon the bounty of others. We do not at all deny that there may be many interesting hints to be gathered from a consideration of well-selected specimens of the ripest manufacturing skill of other nations; but we are also fain to believe that there are many points involved in them which can have no practical application to the art-manufactures of our country, and the copying of which would be positively prejudicial to the interests of correct taste. For instance, the selection and combination of colours in the silk goods of India are justly the subject of admiration of all who have examined them, and are descanted upon at considerable length in the Catalogue; but will it be pretended that these colours and patterns, so effective and serviceable under an oriental sun, would be appropriate as models for imitation under our mixed and varying climate? However this may be, it seems rather an incongruous arrangement, and hardly fair to the tyros of our Schools of Design, to make their crude productions play second fiddle to the larger and more dazzling display of articles selected for remarkable excellence of manufacture from various markets. On future occasions, we think it would be advisable to return again to the system pursued heretofore, of exhibiting the handwork of our art-students in their various grades of excellence, without apology or foil of any kind,—looking upon the things themselves to be of sufficient importance to engage the attention of a large portion of the community interested in the advancement of our manufactures, without the addition of any extraneous attractions.

But we proceed to give some facts as to the Exhibition as it is.

The selection of articles from the Great Exhibition was confided to a committee consisting of Mr. H. Cole, C.B., Mr. Owen Jones, and Mr. R. Redgrave, who have certainly performed their duty in a highly creditable and satisfactory manner. Of the sum of 2000*l.* allotted for the purpose, 4217*l.* 1*s.* 5*d.* only has been expended. Articles were purchased from

the foreign side of the Exhibition to the amount of 2075*l.* 9*s.*; from the British side, 865*l.* 11*s.* 5*d.*; and from the East India Company, to the extent of 1276*l.* 1*s.* Apportioning the amount among large classes of manufacturers, the expenditure, exclusive of certain duties, has been—for woven fabrics, 996*l.* 16*s.* 4*d.*; for metal works, 1371*l.* 0*s.* 6*d.*; for enamels, 844*l.* 12*s.*; for ceramic manufactures, 312*l.* 16*s.* 1*d.*; and for wood carvings and furniture, 691*l.* 16*s.* 6*d.* In making the selection, the committee have not been guided by any predilections for particular styles of ornament, but have evidently chosen whatever appeared meritorious or useful, without reference to the style of ornamentation.

Of course it would be superfluous to go into a statement of particular objects, most of which have been already familiarised to most frequenters of the Crystal Palace. We turn rather to that portion of the Exhibition which comprises the results of the efforts of our native aspirants for fame and fortune, and with which we must say, both as regards number and intrinsic interest, we are disappointed. It should be observed, as partly accounting for this, that, instead of all competitors being admitted freely, good, bad, and indifferent, whose efforts in their various degrees of merit, afforded opportunity for useful comparisons, a selection of prize subjects has been made, to which alone the privilege of being exhibited has been accorded. So that we have not the mere evidences of the progress of the students as a body, but a few samples, selected for supposed superiority over others, but which themselves are not entitled, upon the score of intrinsic excellence, to be exhibited at all. This is obviously a mistake which should be avoided for the future.

The number of schools which have contributed to the Exhibition is 23. The prizes awarded to each school are as follows:—Belfast, 8; Birmingham, 8; Cork, 5; Coventry, 6; Dublin, 12; Glasgow, 21; Hanley, 18; Huddersfield, 3; Leeds, 4; Manchester, 29; Macclesfield, 3; Metropolis (male), 54; Metropolis (female), 17; Newcastle, 5; Norwich, 3; Nottingham, 7; Paisley, 12; Sheffield, 13; Spitalfields, 8; Stoke, 9; Stourbridge, 2; Worcester, 6; York, 7. In the metropolitan display there appeared to be a greater degree of ability displayed by the females than by the males; many of the best drawn specimens are to be found among the productions of the female schools. We were glad to notice, also, some very clean and well-executed drawings and engravings on wood by the female pupils. This is an art to which, in the existing scarcity of means of industrial employment for females, their attention may well and profitably be directed. The metropolitan school furnishes specimens which, taken as a whole, show an improvement over the Exhibition of last year in almost all the departments of instruction. Many of the series of drawings and paintings illustrative of the course of education followed in the schools are the productions of these schools, and are exceedingly creditable. From Manchester and Glasgow some fair specimens of designs of cotton goods, and printed shawls, and groups of flowers, are sent. The Sheffield school furnishes some good drawings for stoves and metal work, and some plaster models of friezes. The Birmingham school contributes one or two tolerably good specimens of modelling, particularly one of a child's head, but no specimens of colours. Belfast sends a few creditable designs for cambric handkerchiefs and muslins, and Dublin some adapted for the poplin trade, as well as a few casts. A few good designs for silk are sent from Spitalfields, and a very good design, in six colours, for a Brussels carpet and rug.

THE SOCIETY OF ARTS UNION.

Mr. Harry Chester's plan for the concentration of and mutual participation in the advantages severally enjoyed and enjoyable by the London Society of Arts and the Mechanics' Institutions throughout the country, has met with such success as to warrant the conviction of its immediate realisation. The meeting and dinner in promotion of the object, on the 18th inst., went off in a most gratifying manner. Lord Lansdowne, in a speech which for elegance and thought is unsurpassable, explained the objects of the meeting, which he happily described as being for the purpose of free and useful communication of knowledge; the basis of such a combination as that proposed being the entire independence of every individual member. By these means, he added,—“whereas all institutions in this country had been from time to time accused of a desire to fortify and support themselves out of the consolidated fund, the present scheme would create a consolidated fund of knowledge, upon which all parties might draw without the least risk of its becoming bankrupt.” The resolutions, which passed unanimously, were proposed by Earl Granville, the Bishop of Oxford, Mr. Milner Gibson, and Mr. Grainger; and seconded by Mr. Hume, Mr. Strutt, the Earl of

Harrowby, and Mr. Tufnell. The Earl of Carlisle, who was present at the meeting in the morning, presided at the dinner in the afternoon, and made a telling speech in support of this useful movement.

It was decided that the success of literary and scientific institutions might be powerfully promoted by the union intended,—a union which would be founded on the basis of independence and self-government; that the literary and scientific institutions in this country being calculated to promote the interests of religion and morality, by the cultivation of literature, science, and art, and by the diffusion of useful knowledge, all classes ought to unite to support and improve them; that the pecuniary conditions of the union should be calculated merely to protect the society from loss, and afford to the institutions the full value of the payments which they might make to the funds of the society. It was finally determined that the memoranda of replies from the institutions in the country should be accepted as a sufficient proof of the advantages to be expected from the proposed union, for the purpose of forming which a sub-committee was at once to be appointed. The conferences between the society and the institutions will be attended quarterly, or at greater intervals, by representatives nominated by each for that special purpose. The terms and advantages of union, which have been acknowledged by no less than 350 out of the 446 of the literary and scientific bodies in the kingdom, have been stated fully in a letter written by Mr. Chester. They comprise facilities for making engagements on known terms, at cheaper rates, with lecturers whose eminence and competence will be generally admitted; a greater amount of system generally in the delivery of lectures; circulation of manuscript lectures; occasional exhibitions of works of art; diagrams, models, and specimens of useful inventions; loans of expensive books; interchange of objects in different localities; purchase of books, drawings, and other necessary materials at wholesale prices; communications of new discoveries and facts; exact information and statistics; and, finally, the cultivation of an *esprit de corps*, and a kindly spirit of co-operation among the officers and members of institutions.

MARSHAL SOULT'S GALLERY OF PICTURES.

The gallery of that veteran ruler of Spanish church and convent, Marshal Soult, has just been brought to the hammer. It consists chiefly of large Madonnas, by Murillo, and is composed of 159 pictures, all of them *chef-d'œuvres*, the marshal having been directed to them by the work of Cean Bermudez, which gave an exact account of their localities,—thereby rendering their seizure easy in time of war. The Prince President of the French Republic attended a private view of the pictures the day before the sale.

KEW GARDENS.

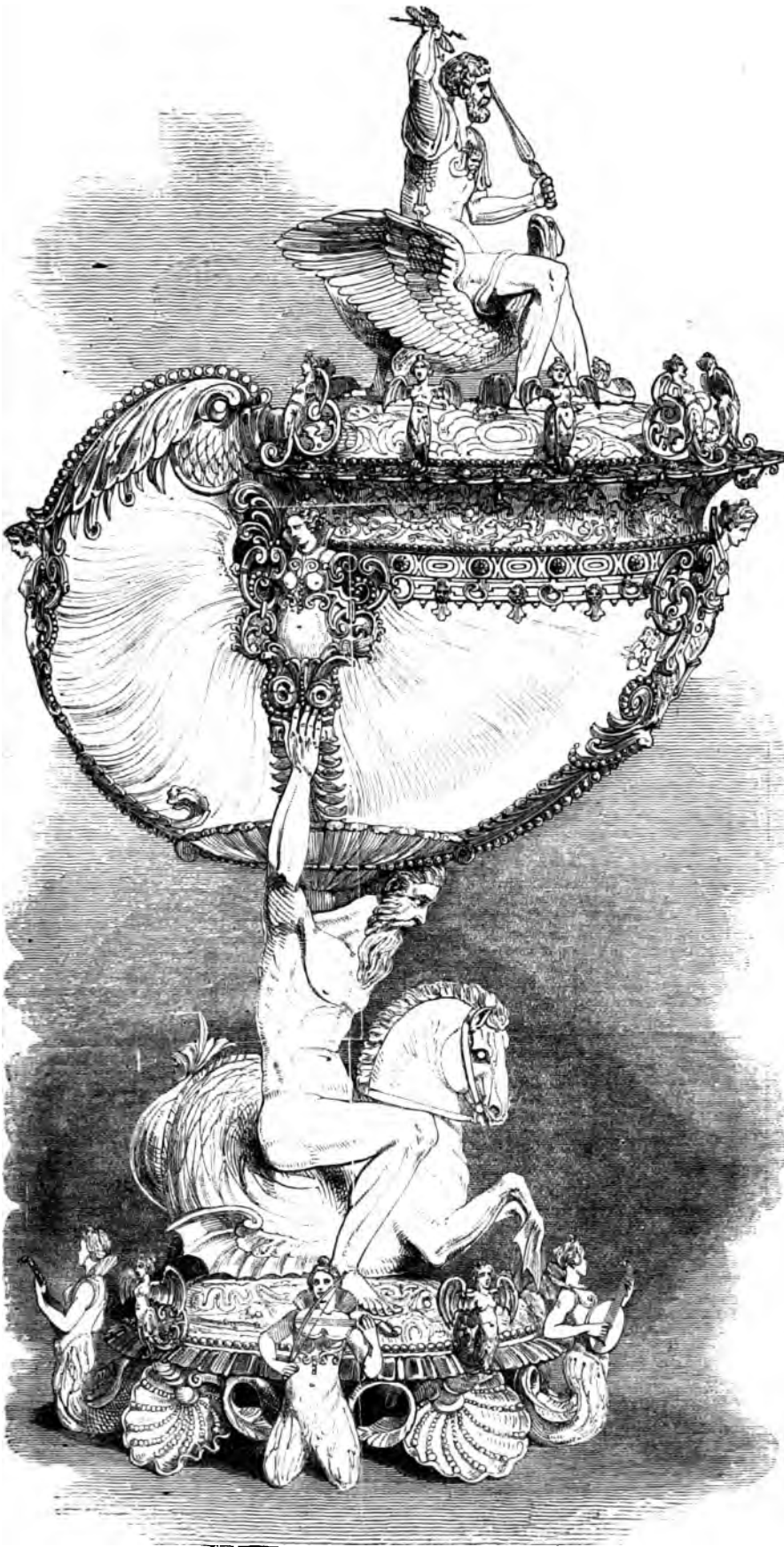
The estimate of expenses for Kew Gardens in 1853 is stated by Sir W. Hooker to be 10,929*l.* 16*s.* for the botanic, and 1,286*l.* 16*s.* for the pleasure gardens.

SPECIMENS OF MEDIEVAL ART.

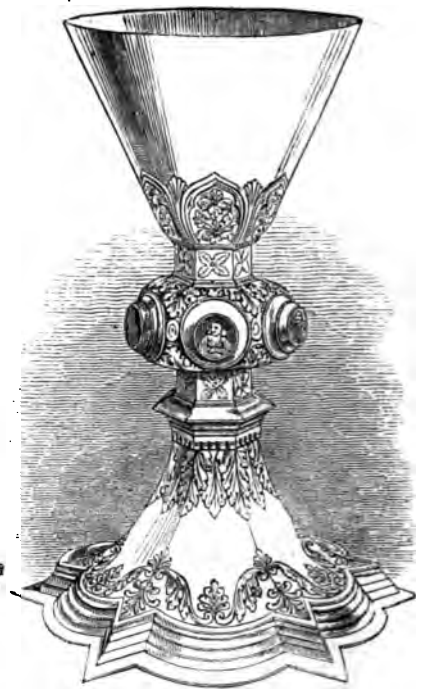
Ten Engravings on the next page are of remarkable specimens of decorative art, in the precious metals, at their different periods. The principal object is a magnificent Nautilus Cup, the property of her Majesty, which was exhibited at the Society of Arts in 1850. It seems to have been a favourite conceit of the operative artists of the sixteenth and seventeenth centuries to mount the shell of the nautilus with figures of naiads, nereids, tritons, and other marine gods and goddesses; for, in addition to this beautiful example, which is supported by a figure of Neptune, and surmounted by another of Jupiter, several others are known to be in the possession of private individuals in different parts of the country. The ornamentation of the example before us is of a remarkably high order; elaborate in detail, and wonderfully executed.

At the introduction of Christianity a number of religious emblems were produced, necessarily of a conventional form, and the Chalice which we have here engraved (the property of Mr. A. J. B. Hope, M.P.) is a striking exemplification of this remark, for we find that it was strictly ordered that the edges of this sacramental cup should not be “turned down;” the reason for this injunction is sufficiently obvious; and indeed, possibly from the same motive, many of the communion cups in use at the present day do not differ very materially in design from this Italian chalice of the fifteenth century. In early and primitive times this vessel was frequently made of wood or glass, or even of horn; but it was subsequently ordained to be constructed of gold or silver. It was not an uncommon thing for the chalice and paten to be buried with ecclesiastics, and several have thus been found. From these, and from the stone slabs incised with these emblems (as indicating the place of sepulture of a priest), it is manifest that this vessel has retained a strong similarity in form from the earliest ages. This example is executed in copper gilt, and is ornamented

EARLY ORNAMENTAL ART.

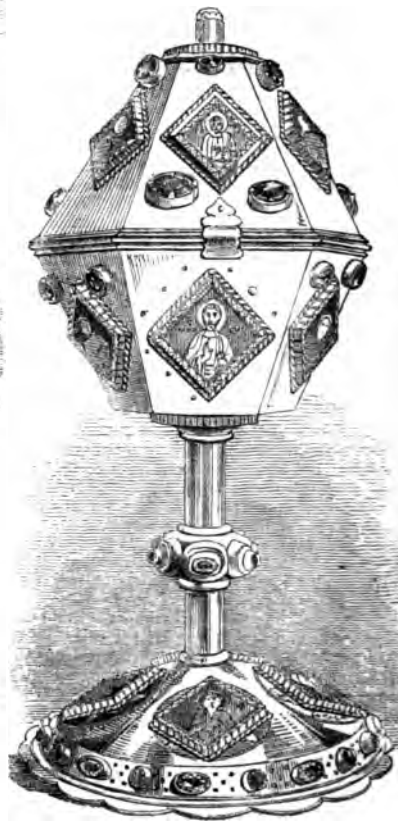


[NAUTILUS, MOUNTED IN SILVER-GILT, THE PROPERTY OF HER MAJESTY.



ITALIAN CHALICE. 15TH CENTURY.

with enamels of the Apostles round the knob or handle. The same degree of conventional form is also perceptible with regard to the Pyx or ciborium, the vessel in which the consecrated wafer was kept; and of a specimen of which we give a representation. It has small enamels, on glass and pieces of niello, of Christ and the Apostles surrounding it, the work of the *fourteenth century*; but it is questionable whether the ornament at present surmounting it has not replaced one of an earlier date and more appropriate in character. It is the property of the Hon. Robert Curzon, jun.



CIBORIUM. 14TH CENTURY.

THE PEOPLE'S ILLUSTRATED JOURNAL

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o. VI.

SATURDAY, JUNE 5, 1852.

PRICE TWOPENCE.



CHRIST DISPUTING WITH THE DOCTORS.—LEONARDO DA VINCI.—NATIONAL GALLERY.

LEONARDO DA VINCI.

At the revival of the Arts, they flourished principally at Florence; and among the great men by whom they were cultivated, should be mentioned, with peculiar respect, Leonardo da Vinci, reputed the chief of the Florentine school.

His celebrated artist, the son of Piero, a notary of Florence, was born in 1452, at the castle of Vinci; from which he derived the surname of *da Vinci*. The gifts of nature were bestowed on him in profusion; and he left none of them unimproved. Besides the kindred of design, he cultivated with success, mathematics, mechanics, statics, poetry, and music; and at the same time made himself master of all the bodily exercises, excelling alike in dancing, fencing, riding. To this uncommon vigour of mind were joined the attractions of a beautiful countenance, and great bodily strength. His father, observing the facility with which he drew, carried some of his sketches to his friend Andrea Verocchio, who was struck by the genius they displayed, and urged him to confide the son to his instruction: young Leonardo thus became the companion and rival of Perugino, afterwards celebrated as the master of Raffaello. He soon acquired sufficient skill to assist Verocchio in his works; and in a large composition, by his master, of the Baptism of Christ, he painted the figure of the angel holding the Saviour's garments, with such superiority, that it surpassed the rest of the picture.

In 1489, Leonardo was invited to Milan by the Duke Lewis Sforza, to execute the statue which that Prince was about erecting to the memory of his father, the Duke Francis; but the colossal size of his model

rendered it impossible to cast it. He was then appointed Director of the Academy of Painting, recently established by the Duke; and



MEDALLION PORTRAIT OF LEONARDO DA VINCI.

employed his talents in various extraordinary works. On the occasion of the nuptials of John Galeazzo, he constructed a vaunted theatrical

machine, in which the planets, rolling in their orbits, appeared in succession, and sung the epithalamium of the bride. He also invented a silver lyre, of a peculiar form and ravishing sweetness. By dint of science and ingenuity, he overcame the obstacles, till then deemed insurmountable, which opposed the junction of the canal of Martesana with that of the Ticino; and finally, he painted in the refectory of the Dominicans the celebrated picture of the Last Supper, so universally admired for expression, and of which so many engravings have been produced.

When Louis XII. conquered the Milanese, and made Lewis Sforza prisoner, Leonardo apprehended persecution on account of his favour with the Duke; but the King, who meditated only to recompense his merit, received him graciously, and accorded him a pension. To show his gratitude, he presented the victorious monarch with an automatic lion, which, after advancing a few steps in the presence, stopped and reared himself on his hinder feet, when his breast flew open and discovered the scutcheon of the Arms of France. To Leonardo da Vinci the art of turning is indebted for several of its implements, especially for that most useful instrument the oval lathe.

But though favoured with the royal protection, Leonardo submitted impatiently to the French yoke, and withdrew to Florence, where he was employed by the Gonfaloniere Pietro Soderini, to paint in the grand hall of the Council the defeat of Piccinino, one of the ablest generals of the Duke of Milan. This picture was never finished, but there exists a cartoon of it, representing a combat of horsemen for a standard, in which the passions of anger and revenge are no less forcibly expressed in the horses than in the men.

Michael Angelo was charged at the same time to paint another scene of Florentine history, and produced his cartoon of the Florentines surprised by the Pisans while bathing in the Arno. The judgment of artists remained suspended between these two master-pieces; and Leonardo, who was now nearly sixty years of age, saw with displeasure his work compared to that of a young man of thirty. He accordingly seized the opportunity offered him by Guiliano de' Medici, who was going to Rome for the exaltation of his brother, Leo X., to leave Florence. He was at first received with distinction by the Pontiff, but was soon sensible of a change of disposition occasioned by the slowness with which he worked, which was such that he is said to have been four years in finishing his famous portrait of Mona Lisa, the wife of Giocondo. This production was so highly admired by Francis I., that he purchased it for the sum of 4000 crowns (about 800*l.*)

Towards the close of 1518, Leonardo, harassed by continual vexations in Italy, accepted the invitation of the young King of France, and repaired to Fontainebleau, where he was received with the highest honours. The château of Clou was assigned for his retreat; but it does not appear that he executed any work in this retirement, where he soon experienced the infirmities of age, and where he died on the 2nd of May, 1519, after a residence of about three years. His remains were deposited in the church of St. Florentin, at Amboise.

It has been often repeated that Leonardo expired at Fontainebleau, in the arms of Francis I., and Menageot has represented a scene, alike honourable to the artist and the prince; but a part of the story is unquestionably false, as Leonardo died at Amboise; and the principal circumstance is, at least, doubtful, for, as Venturi has observed, the Court was then at Saint-Germain, attending on the Queen, who had just been brought to bed; and there exist ordinances signed by the King at Saint-Germain on the 1st of May, which is hardly compatible with the supposition of his being on the 2nd at Amboise.

This great man had a susceptibility of temper bordering upon jealousy: yet he is generally allowed to have possessed, with pure morals, a noble and generous soul, and a humane and rational philosophy. His manners were graceful, and the inexhaustible stores of his mind furnished him materials for conversation on every subject. In the early part of his life, while animated by the passions of youth, and distinguished for personal beauty, he was remarkably attentive to his dress; but in his latter years, and after his dissonances with Michael Angelo, he became averse to the care of his person, and even suffered his hair and beard to grow, which gave him the appearance of an aged Druid.

Leonardo da Vinci's pictures are rare, and when undoubtedly original are of inestimable price. The works of his pupil Luini are often attributed to him.

The fine Picture of "Christ disputing with the Doctors," which adorns the walls of our National Gallery, is an undoubted original. The head of Christ is remarkable for nobleness, and intelligence of expression, and the hands are justly admired for their admirable drawing and finish. The other heads are all highly characteristic. This picture was formerly in the Aldobrandini Palace at Rome. It was bequeathed to the nation by the Rev. W. H. Carr in 1831. It is painted on wood, and measures 2 feet 10 inches wide, by 2 feet 4½ inches high.

EDUCATION.

THE ideal of a schoolmaster is such a man as the celebrated Roger Ascham would have praised;—such as Plato would have loved. America once had one such in Mr. Alcott, the friend of Emerson; and England lately boasted another in Dr. Arnold. The efforts of the first, from obvious causes, perished; those of the latter have been continued in the influence of the author's works and example. Alcott, however, as his "Records" prove, succeeded, during his brief dominion, in summarily developing the infant mind in a manner most extraordinary, so far as the immediate results are regarded. At one bound, Alcott overleaped all the ordinary limits of instruction; and, from the beginning, by his *a priori* method, awakened the living capacity in the latent intellect of the child: and, in its earliest efforts, demonstrated it to be inherently capable of Literature, Art, Philosophy, and Truth. His pupils were made, from the first, acquainted with Spenser, Milton, Dr. Henry More, Jeremy Taylor, Coleridge, Wordsworth, and the Four Gospels; and were, by such delightful studies, brought into that serene and thoughtful frame of mind which the highest philosophy inculcates, and which is most effectively produced by the depth, the freshness, the imaginative vigour, that belong to the works and authors in question. In a word, what Pestalozzi proposed, Mr. Alcott, for a time, effected. He showed, beyond contradiction, the possibility of an ethical and vital development by its actual existence.

One of the great writers above quoted has contributed the highest possible definition to Education. In one of the introductory aphorisms to his "Aids to Reflection," Coleridge enquires whether, "among the various undertakings of men, can there be mentioned one more important,—can there be conceived one more sublime, than an intention to form the human mind anew after the DIVINE IMAGE?" The very "intention," he adds, "if it be sincere, is a ray of its dawning."

Fortified by such authority, we might venture on the technicality of adducing such term, theological though it be, as the End of Education. It is, however, clear, that the man, or body of men, that would sincerely and seriously undertake the proposed task, must commence it in a spirit of religious Integrity,—and that without duplicity, without partisanship, without sectarianism.

But something is involved in what we have called "religious Integrity," beyond what the merely popular reader would imply from the expression. Such a writer as Coleridge would have intended by it, religion in its *entireness* and truthfulness—that is, religion as catholically conceived, without reference to sects, their prejudices, or their passions;—in a word, religion pure and undefiled, yet such as it may be "spiritually discerned" in the "heavenly places" of every man's bosom, provided he has but faith to conceive it, hope to nourish it, and love to bring it forth—for the behoof of himself, his family, his connexions, his country, and the world.

Education, its means and its appliances, have formed the theme and topic of many treatises and tractates. The mind of Milton disdained not the argument; poets and orators have dwelt, and yet dwell, on the pregnant subject; statesmen are found who meditate upon it both day and night: nevertheless, the whole of the problem which it includes can scarcely be said to have been solved either by any or by all.

Not the least difficult branch of the question is this:—the manner of proceeding? Popular lecturers and writers have a ready and voluble answer:—"Cultivate," they reply, "up to a certain period, the intellectual, moral, and physical powers of the pupil."

But the word "moral" is not always well defined by these teachers. Sometimes it is designed to include religion, and, not seldom, politics. Any way, it is merely a speculative position. The practical one is limited to the communication of the arts of reading, writing, and arithmetic, by means in which the affections may be skilfully interested and engaged.

Most professors now admit that the plans of education hitherto pursued have proved deficient in many important requisites; and, in particular, that they have developed the memory rather than the higher faculties of the pupil's mental constitution; while another class of educators, having a mystical turn, demand, as the vitality of education, that an activity of inward development should be excited. They speak of something, as cause and centre, which is to be awakened, and from which all operations should emanate. The silkworm, they tell you, works from the inward to the outward. The charities and sympathies with which a man may become endowed, they assert, form even such a web as that symbolic animal is found to weave for itself. Such charities, such sympathies, cannot be put on, like a costume, from without, but must be vitally wrought from within;—they form thus the native environment and clothing of the human being, else naked. The mystic, consequently, declares that our modern systems of instruction are fundamentally wrong. These regard man as a machine.

On the contrary, the transcendental reasoners to whom we allude, propose theories for renewing the will, for exercising its benevolence, and for promoting its genuine spontaneous productions.

A difficulty meets us in the front of this statement. A certain divine light is confessedly needed, to the proper understanding and due appreciation of the mystic's doctrines. So the galvanic battery is required for the analysis of those elements which the common processes of electrical experiment leave in apparent simplicity. What is meant comes at last to this:—the religious affections are of paramount importance, as the basis of education.

The legislator is, in fact, compelled, while entertaining the public question of education, to accept all the considerations just stated as postulates. But the sectarian jealousy of some, the froward infidelity of others, and the indifference of many, equally force on the practical statesman the expediency of compromise. "What form of religion," he is asked, "would you teach?—and how would you teach it?"

The judgment of a well-known democrat, the late Mr. Thelwall, was that the minds of the young ought not to be prejudiced in favour of any set of religious dogmas, but that all should be suffered to choose their creed for themselves, when arrived at that equivocal epoch of life called "years of discretion," and after having been educated in every thing else;—a shallow sophism, well rebuked by Mr. Coleridge. The poet took the demagogue to a plot of ground, and showed it to him, saying, "This is my botanical garden." "How so?" enquired Thelwall; "it is covered with weeds." "Oh," replied Coleridge, "that is only because it has not yet come to its age of discretion and choice. The weeds you see have taken the liberty to grow, and I thought it unfair in me to prejudice the soil towards roses and strawberries."

And yet this apologue, timely and conclusive as it seems, admits of a reply:—

It may be reasonably, if truly, rejoined, that "it were well enough if roses and strawberries were the things planted by the authorised educator; but that the current dogmas of some religions would be better characterised by the metaphor of weeds:—absurd formulæ and fabulous legends growing up in the bewildered brains of men in an age of darkness and ignorance." "Unreasonable," exclaim certain objectors, "to expect that we shall willingly submit to be inoculated with a set of visionary notions, only because they were blindly entertained by our forefathers." Such reasoners state, indeed, that the great evil of which they complain is, that the conscientious student has to unlearn so much of what he had hereditarily received. Thus it is that infidelity fortifies itself in expressing contempt of all that it deems objectionable in the traditions that constitute historical religion; traditions, most assuredly, deserving of much respect,—nay, of the deepest veneration.

Variant, and even contrarious, in character and in circumstances, in style and in taste, according to the different genius of different times and places, these traditions all embody, under many forms, the same truth. All declare the priority and superiority of a still higher law, and exhibit examples of it in a greater or less degree of purity. All inculcate principles diviner than the practice of the people by whom they are believed. All testify to a real union with an eternal and absolute wisdom, whose operations are only limited by its own ultimate act, the physically defined representation of the mathematical point, beyond which, in its descent, it could not beneficially go. All witness to the real being of a Creator, whose power is unlimited even by the extent of the universe, and the completed cycles of fulfilled time.

These remarks are intended only by way of introduction. We desire to treat the subject itself, in many of its relations, in subsequent Numbers. To the philanthropist, the subject will come attended with many attractions. That reverence, so much insisted on by German critics, without which education must be wanting in the sentiment that should serve as its basis, will be by him anxiously regarded. He will, indeed, seek to extend the circle of its affinities,—to comprehend in it the present and the future as well as the past. As Wordsworth recognises the poetic spirit in the meanest object in nature, so will the true philanthropist recognise a certain greatness in the humblest individual. Modern philosophy, indeed, bids us, in our appreciation of humanity, to accept the entire volume of history. It will not allow that the generous, the heroic, and the sage of any place or time should be indiscriminately consigned to disrespect, under a sweeping charge of Paganism; but condemns it as a vulgar mistake, arising from an improper extension of the meaning of terms. "Heathen," and "Pagan," are words signifying *villager*, and *countryman*—the inhabitant of heath and cottage,—that never can be properly used to designate an Aristotle or a Plato, touching whom the rudeness or ignorance, real or supposed, of the rustic can never be reasonably assumed. With his reverence of antiquity, therefore, the philanthropic educator would proceed in a catholic spirit; and, in no sense of the words, would permit the *Promethei* of antiquity to be mis-called Pagans. The most pious Christians have ever written of such names as Socrates, Plato,

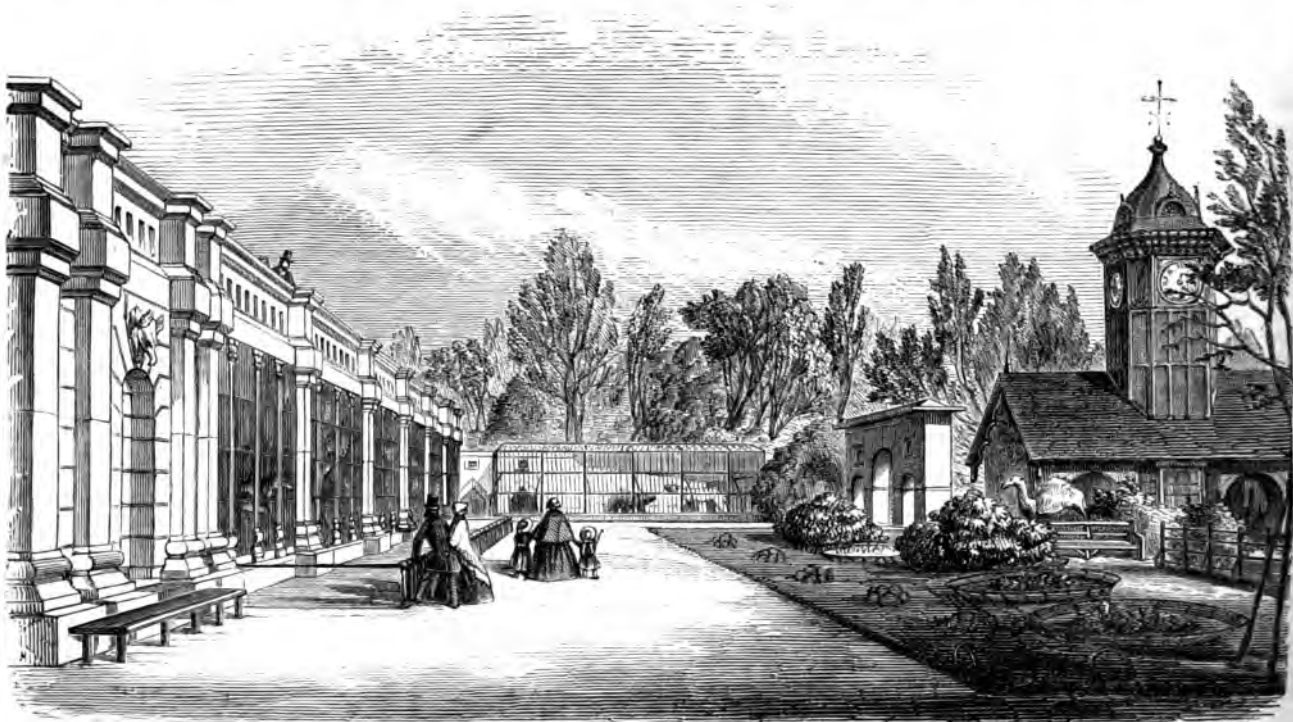
Pythagoras, Epicurus, Zeno, and Cicero, with such veneration as belongs of right to the memory of those who have acted well or spoken wisely. We may do all the justice we can,—we may safely do more than justice—to all systems previously to Christianity,—we may generously or gratefully enthrone their founders among, or (as Goethe beautifully expresses it) "behind" the stars, as heroes, demi-gods, or gods;—yet that religion, of which every Christian man is the inheritor, shall nevertheless prove itself, by its superior excellence, to be the exclusively heavenly-born and the divinely-sanctioned. Of that faith, moreover, the leading doctrine is this:—that men everywhere are the offspring of their Creator, and that the wisest among them are commissioned as well-beloved and eldest sons to his less-gifted and less-instructed children—thereby to become to the ignorant and the degraded the ministers of education and redemption. Let, accordingly, the memory of such men, in every country and age, be held in everlasting and grateful remembrance.

A VISIT TO THE ZOOLOGICAL GARDENS.

IT was a happy suggestion of Sir Stamford Raffles to the equally philanthropic and earnest Sir Humphry Davy, that it was possible, by means of a learned society as the executive and creating body, and of the public as voluntary contributors (in the form of admission fees), to establish in this metropolis a zoological collection of as complete a character as could be collected in any part of the world. The suggestion has been attributed also to Mr. Sabine, to whom, however, is due much of the credit of having laid permanently the basis of the Zoological Society of London, as it now flourishes. It was through the exertions of the two first-named savans and philanthropists, and a few other gentlemen of similar tastes, that the Zoological Society was enabled, in 1826, to take possession of, and lay out for menagerie gardens, the eligible piece of land in the northern portion of the circle or inner grounds of the Park which they still occupy. This space was considered at first, by the authorities of the Woods and Forests, as being much larger than a society of private gentlemen would ever be able to stock with a collection of animals. The fact has proved very far otherwise; for in five or six years after the opening of the menagerie grounds in 1826, or rather 1827, the accession of specimens to the collection were so numerous and were made so rapidly, from the three sources—government contributions, private gifts, and purchase by the Society, through the increase of its funds—that it was found necessary to apply for an addition to the piece of land already granted; and accordingly, a space nearly as large was granted between the Park pond, north of the original site, and the canal. The increasing prosperity of the Society's revenue in the last and, hitherto, the present year, would warrant the supposition that before long, and from time to time, further extensions of the Gardens will become necessary; and it seems scarcely too much to anticipate that the collection will, in course of time, comprise examples of *all* the most important species whose habits and attributes do not totally disqualify them from such localisation; for, although we have caught, and can keep right well, the white bear, measuring 8 feet 6 inches in length, we could not very easily contrive to keep so comfortably, and with as much gratification to the visitors, the white shark, who might measure only three or four feet more. But omitting only such zoological specimens as the latter, and others which we could not keep in the living state, or should not desire to keep so, this Society bids fair to exhibit a complete living illustration of animated nature. It is strange that, with the example, slender as it is in this respect, of the Jardin des Plantes before us, such an establishment as that of the Gardens in the Regent's Park was not thought of before 1825, and that then it arose from the co-operation of a few scientific men, principally for the cultivation of a particular science, but partly also with a view to the instruction, combined with the rational amusement, of the people. There may be some perverse utilitarians to deny that "zoology is of any use to the people"—as, indeed, it was denied emphatically by an eminent and popular political writer in 1826, who railed at the "hypocritical cant" of those who sought accommodation for their aristocratical idleness in the Regent's Park at "public expense," pretending that they wished to instruct and improve the people. But if William Cobbett could now-a-days pay a weekly visit to that Park and those Gardens on a sixpenny day, and see the gathered thousands of the people—aye, his own emphatic PEOPLE—observing (with seriousness and curiosity of observation nearly amounting to study) the wonderful forms of animal life from all parts of the earth; if he would compare the manners and the aspect of those gathered thousands with his recollections of all the gatherings and congregations of the people in public places of amusement before 1825, he would acknowledge that these Gardens are not a mere lounge for aristocratic idleness—that they do afford a means of instructing and elevating the people, at the same time that they delight and amuse. Those who remember the discussions and conversations which took place upon this subject, and others akin to it, in Parliament, and in the speeches and writings of public men, during the year or two preceding 1825, will agree that the suspicion, in which the Government of that day was held in relation with public works or proposed improvements of any kind, had a great deal to do with preventing Davy and Raffles from obtaining for zoology some such direct national support as that given to the British Museum, in which certainly this science is by

no means forgotten. But we had at the time a Royal if not a National Zoological Collection—the live lions, &c., in the Tower—and there were a few rare animals, also, in the Queen's Mews at Pimlico; and there was a strong feeling at the period above-mentioned that it would be desirable to make these the nucleus of a collection of living animals worthy of a national menagerie, and illustrative not only of the science of zoology, but of the resources of the country. The feeling of popular men was too distrustful of the Government; but even so, had the Court been as popular then as it is now, some such plan would have been carried out. However, under the existing Society, it has done very well, although the course of that body has not been quite smooth and prosperous throughout. There have been occasional difficulties about the management; and on the subject of their farm, differences came to so much, about seventeen or eighteen years ago, as to threaten the dissolution of the Society. These differences were compromised by a change of officers and management, and the withdrawal of two or three members, whose conduct was not quite approved of by the Society at large. Through several years the Society experienced vicissitudes of prosperity and

difficulty, until 1847, when a change of policy, and a more efficient *officering* of the establishment produced a new course of prosperity, which has since been uninterrupted, and almost every change of management or of measures has been one of progress, and attended with success. The mortality amongst the animals, at one time a source of great loss, has become much reduced by improved and, it is supposed, more economical treatment. In this respect, and in some others also, the Society may say to its assailants, "the longer we live, the more we learn." Although it was contemplated almost from the first to make the Gardens accessible to the public on as wide a scale as possible, we can assure our young readers that a quarter of a century ago the idea of that *possible width* was very narrow indeed compared to that which is now happily almost the universal idea. It was not at the outset considered safe to give admissions except to persons known to, or recommended by, the fellows. Then it was rendered by gradual relaxation easy for any "respectable" person to obtain a ticket for the shilling admission. Ere long it was found convenient to allow any person of respectable appearance to pass in (upon payment of the shilling) under cover of the last order presented, although not con-



THE ZOOLOGICAL GARDENS, REGENT'S PARK.

needed with the parties regularly admitted thereby. And now it has come to this, that it is found as safe and convenient, as it is desirable, to admit, without any formality or sham of introduction, any person of whatever class, who has the good sense and good taste to think a shilling well laid out for a day's delightful recreation in these charming grounds, not surpassed in beauty, for their size, in Europe; and not equalled anywhere for the richness and variety of their contents. Yet, further, on that one day, when alone (except Sunday) the actual working man could take the time to devote to such recreation, the price is reduced to 6d., an admission fee as low as we think it possible to make, with a wholesome view to the ample sustenance and improvement of the menagerie, unless, indeed, the Society were to reduce the charge to 3d. for children under 15 years of age. Now, will any one say that the gardens, though so much more crowded, present a less orderly or gratifying appearance on those cheap Mondays, than upon the ordinary shilling days, in the earliest times of cautious restriction? The Society and science have been benefited by the increase of the funds,—the people still more so by the improvement of their minds, their knowledge, and, what is not the least important to morals and happiness—in their manners: for, it is quite evident from the observation of the last quarter of a century, that the admission of the people generally in large numbers to places where there is instruction in a very attractive form of amusement, accompanied with a knowledge that good manners and appearance are expected of them by all who may see them there, has a powerful effect in producing good manners and good appearance. The man who means to treat his wife and children (do pray let them in for 3d.,) to a Monday at the Zoological Gardens, or the Museum, or an evening to the Polytechnic, will reflect that it is not to the gallery of a minor theatre he is going. He will keep it in mind during the previous week, will strive to look well *going* there, and to behave well *when* there. The mother will take equal care of herself and the little ones. And thus one day of good manners

and good appearance leads to twenty such, and a few repetitions confirm the habit. Absurd as it is to deny that zoological knowledge is of "any use" to the people, there are persons who do so. But no one can deny that it is a kind of knowledge very much coveted by the people, in all ages and nations, as is proved by the histories of itinerant menageries, great and small, genuine and hoax, at fairs and in capitals. These Gardens are, therefore, *essentially* attractive; it is proved that they produce a good effect upon the masses that visit them, and they consequently are entitled to any public support which the extension of their usefulness may require. Her Majesty, her consort, and the government have contributed much to their enrichment, not only by direct presents of valuable, and often costly, specimens, but through means of the assistance rendered abroad to the Society's agents and correspondents, by British consuls, naval commanders, and other functionaries on foreign stations.

We do not wish to be supposed in this place altogether to *ignore* or to slight the similar establishment on the south side of the River, so well known and so popular as the Surrey Zoological Gardens. But our attention, at present, is confined to that of the Society in the Regent's Park, which partakes of the character of a public institution.

The modest entrance to the Gardens is between two rustic lodges, which are situate on the northern edge of the great enclosure or circle, upon a line between Portland Place and Primrose Hill. Although the gate is unpretending, it will be easily known by the stranger, from the road opposite being considerably widened by a sweeping curve to make room for a stand of carriages in waiting, of which there are generally a number to be seen, and sufficiently indicate the site. Immediately upon entering, for the first step, one is struck with a new and special confirmation of the well-recognised fact, that our English landscape-gardeners, as they are called, not only excel all others in taste, but vindicate the national character for alleged deficiency of that requisite in Art; for in theirs, they display taste and genius incomparably above

gardener-artists of any age or nation. And we have the great of Bacon for placing this art in a high rank; for he says, that such as architecture, always come to perfection in the profession sooner than gardening, which, he thinks, shows that is the greater perfection. Different as is the adaptation of art of landscape gardening to these grounds from that seen in larger public gardens, the parks, &c., yet we notice the same observance of Pope's golden rule for art-gardeners to study the *genius of the place*, and not to lose sight of good sense. The precepts are strictly followed here, and with best effect. Too much is attempted,—everything is done to please the eye by the judgment.

Right, as you enter, is the walk leading to a new aviary and a pond by storks and cranes. Leaving these, and returning to the terrace walk upon which you came from the entrance gate, is at a point from which one of the most charming landscape can be glanced at in the county of Middlesex can be had—pretty to gratify Leigh Hunt, who, being in Italy, preferred Primrose Ravine, and honestly pronounced the environs of London to be more picturesque than those of Naples. From this point you may see Hill a real *picturesque*; and if you turn southward you see that even chimney-tops, disguised through tree-tops, are rather unsightly.

Views, to be had in every direction from this spot, about twenty paces, on the terrace walk from the gate, are worth the whole shilling day's walk, if it were only for the reflection that the bricklayer quite blinded us yet. The grand walk is carried over the heads of the larger carnivorous animals, those of the feline or cat on reaching its termination, you have nothing to repay your trouble, except the most pleasing view that can anywhere be seen. The Regent's Park itself, and of Indian animated idols, Brahmin cows, grazing quietly and contentedly, with outlandish creatures opposite parts of the earth, in an English paddock. On the terrace is the great pit of bears, in the centre of which rises a whereupon these terrible creatures disport themselves, and their lazy agility, unmuzzled, for the amusement of the multi-frightful tragedy has taught us that we must keep a "civil from these creatures. We say no more;—the wisest precautions managers, and the utmost vigilance of their servants, cannot place of common sense on the part of visitors. On the left the cage of the king vulture, and in the neighbourhood the the macaws and parrots; opposite to which is the house of the noble representatives of the camel. Between these two the pond for aquatic birds, in the centre of a lawn richly with purple beech. This is one of the most interesting spots in the park, the beauty being much enhanced by the play of the in the middle of the pond. The grotto of the pelicans is here an object. It is not our present purpose to give a catalogue contents of the Gardens, though such is very much needed. A piece of water, at some distance beyond the mansion of the lions, the lodge of the polar bears; and not far from it the otter lake and homestead of his own. We arrive almost immediately a very beautiful part of the Gardens, nearly central, and here the monkey-house; opposite to which is a commodious refreshment, where there is nothing to be complained of in respect of charge or attendance. We next come upon the dwelling of the called *Raptors*,—the feathered analogues of lions and tigers. of the collection is worthy of much attention, and here the catalogue is felt as much as in any other division. Further cages of the owls, and the doves, and the admirer of the can Cooper will be delighted to find in this immediate hood the opportunity of determining the naturalist's question of vision and buffalo, as argued in the "Last of the Mohicans;" he finds the pride of the prairie, the lion ox, the true bison, the finest-looking creatures upon earth. From this transatlantic we turn our eyes to the pond accommodating the various of the *Anseres* (or goose tribe), including the swans, amongst the most curious treasure of the newest gold region, the Australian a, sails as majestically as if he knew that he furnished in his a living contradiction to the Roman's type of an impossible he is perhaps still, like the "honest man upon 'Change," an impossibility, at least a rare bird.

Now brought to the tunnel,—and here we pause. When the roads were first laid out in 1826, it was thought that the area have already traversed was spacious enough to contain all the wealth the Society could ever hope to accumulate. A exposed the timid miscalculation, and it was found necessary to acquire more acres to the Gardens. This could be had only by a portion of almost waste land, on the other side of the road, the canal, which rendered a tunnel under the road necessary. in which this underground way has been managed deserves notice. The faces are agreeably architectural, without being much of,—without telling you distinctly that you are passing and into another. As you enter the tunnel from either side, you observe that you pass under a beautiful archway, and never see a clumsy joining of two patches together. The first object of notice in this northern part of the Garden is the museum, rich in natural preservations. Beyond it is the reptile-house, the contents alone are sufficient proofs of the energy as well as of the of the present managers. There can be no question about

the matter, there is not such a collection of living curiosities in the world as this building holds. Next we find the picaresque styes, and then the elephant-house, from which we turn to the house of the giraffes,—those beautiful creatures which we used to know in our childhood as the camelopards. It was certainly a bold idea to collect a stud of them,



THE OWLS.

—those denizens of arid Africa,—and make them live and thrive in our cold wet climate. Bolder still it was to think of multiplying them here; yet it is done. The creatures are healthy and happy, and they have bred. There is here a beautiful fawn, two months old, as much at home, as playful and as lovely, as if all its ancestry had skipped with English kids since the Flood, or the days of King Lucius at the furthest. Our next and now our greatest wonder is the hippopotamus, whom it cost the Society so much pains to convey hither from the Upper Nile.



AVIARY.

He is said to be an ugly clumsy creature. We do not think so, and we are sure that he does not think so himself, for he looks as innocently and amiably at every visitor who notices him (and who does not?) as though he meant to say, "Do you not like me?—am I not a pretty, playful little dear?" Further on is the collection of the Cervine (or stag) family, amongst which are some remarkably noble animals. Close to these is a well-arranged building tenanted by Australian and other trans-tropical birds.

We have spoken of our belief that in the course of no long time the collection will comprise adequate specimens of all animated nature, to the extent to which it is useful or desirable to make any collection complete. We might exclude the shark, as we might also have shut out the thought of preserving alive the rattle-snake or the cobra di capello. But it is very far from impossible that greater marine wonders than the white shark may yet be viewed and examined harmlessly in the Regent's Park. In all seriousness, we say that it is not beyond the scope of the Society's enterprise, or that of their secretary, Mr. Mitchell, to whom they and the public owe so much, to nurse to maturity an Arctic whale in their Gardens, even if they should have

to apply to Masters for an invention to ice the Channel waters for his comfort.

In 1828, on the 15th of May, the Gardens were first opened to the public on the payment of a shilling, with the presentation of a member's order. In May, 1847, the formality of members' orders was dispensed with, and the public at large were admitted indiscriminately upon payment of one shilling each. On Monday, the 10th of April, 1848, the Gardens were opened to all classes upon payment of sixpence each, and from that day the same charge only is made for admission on every Monday. The number of visitors last year amounted to 667,000.

The number of animals at present in the collection is 1600,—of which 450 are Mammalia, 950 Birds, and 200 Reptiles.

A large importation of birds was hourly expected at the time of our last visit; and the constant accession of new specimens offers the greatest obstacle to the publication of a catalogue.

A STORY OF JAPAN.*

OVER a grave, near the harbour of Petropaulowska, in Kamtschatka, a conspicuous monument bears an inscription conceived in the following singular terms:—

HERE REST THE ASHES OF
LIEUTENANT FEODOR MOOR,
WHO TERMINATED HIS CAREER IN THE HARBOUR OF PETROPOLUOWSKA,
ON THE 22ND OF NOVEMBER, 1813,
IN THE FLOW OF HIS AGE.
IN JAPAN
HE WAS ABANDONED BY THE PROTECTING SPIRIT, WHICH HAD
HITHERTO BEEN HIS GUIDE.
DESPAIR
PLUNGED HIM INTO ERROR;
BUT HIS FAULTS WERE EXPIATED BY BITTER REPENTANCE AND DEATH.
FROM THE FEELING HEART HIS FATE CLAIMS
A TEAR.
TO HIS MEMORY
THE OFFICERS OF THE "DIANA" DEDICATE
THIS MONUMENT.

To this tribute manifestly a pathetic story is attached. It is an epitaph flattering not the dead; but recording the guilt and penitence of one whom error and remorse had impelled to suicide. To the officers of the "Diana," Feodor Moor had been as Enobarbus to Marc Antony; and, like that repenting follower, had ultimately found the good stronger than the evil in his nature, and sunk under a sense of his unworthiness in having fatally yielded to temptation. Lieut. Moor, says his comrades of the Russian imperial sloop of war, named the "Diana," was a man of great merit and varied attainments. In addition to the knowledge requisite for his profession, he was conversant with several languages, and was an admirable draughtsman. He loved the service to which he had devoted his life, and was zealous and indefatigable in the discharge of his duty. In society he was exceedingly entertaining. Captain Golownin says of him, "I had served on board the same ship with him for five years previous to the unfortunate catastrophe which befel us in Kunashier. Had not fate rendered me a witness of his errors, I never could have believed him capable of such a change as his conduct in Japan exhibited." To which we may add, that never was there a nobler instance of Christian benevolence than the example set by these Russian sailors of pardon and forbearance, under the circumstances detailed, in regard to their erring comrade.

The whole story is an illustration of the Christian admonition—"Let him that standeth take heed lest he fall." The weakness of Mr. Moor is doubtless that of many men, deemed, like him, strong, until proved.

Having received an order from the Minister of the Imperial Marine, directing him to make a minute survey of the Southern Kurile and Shantar Islands, that lie to the south of the main land of Siberia, opposite to the mouth of the river Ud, and also of the coast of Tartary, from latitude 53° 38' north, to Okotzk, Captain Golownin proceeded to open a passage through the ice, and on the 25th of April, 1811, got the "Diana" out from Petropaulowska to Awatska Bay, and on the 4th of May weighed anchor and put to sea. The plan he had determined on was this: to sail direct from Kamtschatka to the Strait of Nadeschda, between the islands Matua and Rashaua, and to regulate his chronometer according to their situation, in case he should find no opportunity for lunar observations; and then to steer along the southern coasts of the Kurile Islands, and to commence his observations with the island of Ketoi, which had not been seen by the Nadeschda, and so on with every island in succession, until he arrived at Matsmai; next to sail between the islands Ectooreop and Matsmai, and to explore the whole northern coast of the latter until he should reach La Perouse's Straits; hence, keeping the peninsula of Sagaleen in view, to steer to the point (53° 38' latitude) whence his examination of the Tartar coast was to commence, with which, as well as his observations on the Shantar Islands, he hoped to be ready towards the latter end of the summer.

This was undoubtedly a well-devised scheme, but the dangers of carrying it through had been miscalculated. On the 17th of June they came within sight of a sort of bay or island, and sent ashore Moor and

the under-pilot Nawitsky, in an armed boat of four oars, to make observations. The captain himself followed in another, and found to his astonishment that the inhabitants, whom he had thought were Kuriles, were Japanese, and he therefore had occasion to rebuke Moor for his rashness in venturing with a mere handful of men among a hostile people. To Moor it seemed that if he had acted otherwise it would have been cowardice; what he had done, however, was unreflective impulse, nothing more—and indicates the primal defect of his character. To the Japanese the whole party were unwelcome visitors, and not without reason. A few years previously some Russian merchantmen had twice attacked Japanese villages, and carried off or burnt everything they found, without sparing the houses, temples, or provisions—destroying in particular their supply of rice, owing to which the natives in winter suffered hunger in addition to intense cold. The captain and crew of the "Diana" had to pay the penalty of this outrage; but not immediately; for the natives directed them to a further part of the coast, to Oorbeetah, the most productive spot in the island.

Captain Golownin suspected the courtesy of the Japanese, and sought information from some captive Kuriles, but without effect, their statements being contradictory. One, however, whom they retained on board as a guest, named Alexei Maximovitch, was serviceable, in showing them a safe anchoring-place near the island of Kunashier, whither they sailed instead of Oorbeetah. They were at first received with hostile demonstration; but the captain found means to change the opinions of the inhabitants in favour of their peaceful intentions, during which Moor's skill as a draughtsman was called into account. All manner of civilities followed on these preliminaries, until the captain and some of his officers and seamen were lured on shore, without taking the precaution of being specially armed for the occasion. Having been liberally entertained, their departure was prevented. The captain, Mr. Chlebnikoff the pilot, Mr. Moor, the seaman Makaroff and three others, with the Kurile Alexei, were detained, bound, and confined as prisoners. Their treatment at first was severe, but gradually it relaxed, and the mildness and generosity of the Japanese became a subject of eulogy, notwithstanding the treachery with which they had entrapped their victims.

The first behaviour of Moor, under the painful circumstances detailed, was of great promise. He, with Chlebnikoff, the pilot, instead of reproaching their commander for his rash confidence in the Japanese, did all they could to console him. Moor, indeed, referred him to the examples of Cook, De Langle, Prince Zizianoff, and others, who had become the victims of similar treachery. And Captain Golownin stood then in need of all possible consolation; for, in his sense, he felt at that time as if it were better to die than to live. Yet it was evident that they were pitied by the Japanese, though the latter never permitted their compassion to interfere for a moment with their duty. The respect and regularity of their proceedings were indeed exemplary, and might serve as models for states boasting higher cultivation. But their precaution was excessive, and gave much pain to their captives. Moor, at length, from his skill in draughtsmanship, began to be an object of attention; and also Chlebnikoff, from the excellence of his calligraphy. Both were required to decorate the fans of their captors with drawings or inscriptions. The Japanese considered a specimen of Russian writing as great a curiosity as one of Japanese would be looked upon in Europe. They showed our voyagers a fan upon which were inscribed four lines of a popular Russian song, signed by a person named Babikoff, who, it appeared, had visited Japan along with Laxman. Though these lines must then have been written twenty years, the fan was clean and fresh as if perfectly new, having been kept wrapped up in a sheet of paper. The sailors of the party were also requested to write, but excused themselves on the score of inability. This much surprised the Japanese, for in Japan education is universal. They use, however, two kinds of characters in writing—one set the same as that used by the Chinese, in which every word is expressed by a distinct mark: hieroglyphics composed and borrowed, indeed, from the Chinese several thousand years ago; so that the name of any object, though pronounced quite differently in the Japanese and Chinese languages, is expressed by one and the same sign in both. This character is employed for works of the higher order, for official papers, and for the correspondence of persons of superior rank. The other Japanese alphabet, consisting of forty-eight letters, is made use of by the common people. Every Japanese, however low his rank, knows how to write in this last character. Hence it was that they were exceedingly astonished to find that of four Russian sailors not one should be able to write.

The place of their imprisonment was in Chakodade. The disposition of the party was made with great courtesy and consideration. Moor and the captain were asked which of the sailors should remain with them; they requested that Chlebnikoff should do so. But the Japanese objected to this, thinking it improper "to leave sailors without an officer, who would teach them, by his example and advice, to bear unavoidable misfortunes; adding, that the men might otherwise lose courage, and become the victims of despair." This is a fine trait. The captain, however, was separately confined, and gave way to despair; after a little while he was permitted the companionship of the sailor, Makaroff. Their position was gradually alleviated; but the food was bad, and Moor, suffering from a complaint in his breast, charged it on the objectionable fare; nevertheless, it was not altered.

The imprisoned readily become the ingenious. Want makes them

* "Japan and the Japanese: comprising the Narrative of a Captivity in Japan, and an Account of British Commercial Intercourse with that Country." By Capt. Golownin, of the Russian Navy. 2 vols. COLBURN.

inventive. Without paper or ink, Captain Golownin hit on the following means of keeping a journal. When any thing agreeable happened he tied a knot on a white thread, which he drew out of the frill of his shirt; when any unpleasant event occurred, he made a memorandum of it by tying a knot on a thread of black silk, taken out of his neck-handkerchief. With regard to other circumstances which, though remarkable, had occasioned neither joy nor sorrow, he recorded them on a thread of green silk, which the captain abstracted from the lining of his uniform coat. "Often," says he, "did I count over these knots, and recall to my mind the events they served to denote."

The situation of the prisoners daily becoming more embarrassing, doubt and despair increased. Mr. Moor, in particular, grew very unwell, complained of chilliness, and was allowed to warm himself by the fire in the lobby near his cage; nevertheless, he complained bitterly of his treatment. In the course of time, the place of their imprisonment was changed; and they were conducted to Matsmai. The strength and plan of their new prison appeared to denote that it was to be their dwelling-place during the remainder of their existence. They gave themselves up for lost. Nevertheless, from the Japanese officials they continued to receive every kindness; and to Moor, with whom they were greatly pleased, deeming him to be an exceedingly learned man, they showed particular attention. The inquisitiveness of the Japanese was astonishing; and the officials irritated their captives with the number of questions they put to them, almost beyond endurance. They were at length permitted to address a memorial to the government, requesting to be set at liberty, and returned to Russia; and were further advised "not to give way to despair, but to offer up prayers to Heaven, and patiently to await the decision of the Emperor of Japan." Well had it been for them had they taken such good counsel; instead of which, they took advantage of their improved position, and attempted to escape. They consequently incurred displeasure, renewed restraint, and a prolongation of captivity.

In this attempt they had committed a mortal crime; but, such was the clemency of the Japanese, that they chose to consider that it was natural for men who loved their native land to wish to return to it; and though they punished them by re-imprisonment, inconvenience, and delay, ultimately surrendered them. But it was a weary time, and weighed heavily on all. It should be mentioned that Mr. Moor had been opposed to the attempt at escape, and did not join in it. A change had for some time previously taken place in his behaviour; he courted the Japanese, and showed a disposition to adopt their customs, treating the officers with a strange veneration, which excited the amazement and risibility of its objects. He likewise volunteered to instruct the natives; and even went so far as to disclaim his country, assigning a German origin to his family. His father, indeed, was a German, but his mother was a Russian; also he had been baptized in the Russian faith, and educated in the Naval Cadet College. He wished, indeed, to enter the Japanese service as European interpreter.

The story of their escape is full of the most romantic details of rocky scenery; but the reader must seek for these in the original narrative. On being retaken, nothing could exceed the courtesy of their captors. No displeasure was expressed; but stringent means were, notwithstanding, adopted for their security. The captain took upon himself the entire blame; but Moor contradicted this, stating that the sailors were not obliged, under the circumstances, to obey their captain. In other respects, also, he seemed desirous to make the worst of their case. This treachery on the part of their comrade was painful to all.

Many were the artifices to which this misguided man resorted to conciliate favour from the Japanese authorities, who, on their part, appear merely to have sported with his hopes or fears. They still treated their captives with kindness, though as criminals; and looked on Moor with suspicion, making use of him, but not trusting him. Such, indeed, is the intense nationality of the Japanese, that no foreigner could, under any circumstances, be admitted into their service. Thus much, however, he achieved, that he lived in comparative freedom, and appeared as evidence before the bunyos unbound, while his companions remained in bonds. He likewise gave written information, betraying the object of their voyage, and minutely describing the situation of Eastern Russia and the political relations between France and the Russian empire after the Peace of Tilsit.

At length aid came from the Emperor of Russia; the "Diana" had re-arrived with another vessel, charged with the task of bringing the Japanese to their senses. This circumstance had an effect on Moor, who was able to inform his countrymen of the amount of force on board both ships, and that they had captured five Japanese, whom they detained as hostages until their own countrymen were liberated. Much delay, however, was suffered before proper arrangements were concluded for their liberation; and during this long interval, a great change took place in Moor's state of mind; in a word, he became decidedly deranged. The trial had been evidently too much for him; his intellect gave way beneath the pressure. The man who had so faithfully wronged his companions, now became an object of their tenderest pity. At length they all found themselves again on board the "Diana," with many of the Japanese, all on the most friendly footing, the utmost generosity being displayed by both parties. Every thing bore the colour of happiness to all but to one man; that man was Moor. This unfortunate officer showed the deepest repentance; and, by common consent, his errors were overlooked. While the others were engaged in accepting the congratulations of their friends, he stood apart, motionless, and apparently insensible to all that was passing. Efforts were made to amuse

his mind; but all in vain. He grew negligent of his dress, herded with the sailors, and avoided those of his own rank. When remonstrated with, he would reply, "I am unworthy to associate with my brother officers; it is even too much if the sailors condescend to keep company with me." He was self-condemned; and ultimately confined himself to his own cabin, sometimes forbearing food for three days together, and then eating voraciously.

With a mind so bowed down by shame, life was a yoke too heavy to be long borne. Moor's despondency increased; no change of scene or situation availed to relieve it; frequently he wept bitterly. Religious consolation was equally in vain; wealth even was ineffective. With the latter he was advised to provide himself with a new outfit; but he replied that he neither wanted money nor any thing else. His dress consisted of an old Kamtschatdale parki, made of rein-deer skin. At length his conscience obliged him to address a report to Captain Golownin, in which he styled himself a traitor and an outcast, and declared that he felt himself called upon by all that he regarded as sacred to make this confession. The remainder of the tale had better be told in the Captain's exact words:—

"This report was so incoherent and extravagant, that not a doubt could longer remain of Mr. Moor having lost his senses. I immediately wrote a letter of consolation to my unhappy companion, to assure him that his error was not so enormous as he himself accounted it; that we all wished to forget what was passed, and that, as he was young, he would have many opportunities of making amends for a fault into which he had been driven by despair. I added, that his future good conduct could not fail to remove all the remorse which agitated his mind. I requested that Lieutenant Rudakoff would be the bearer of this letter, and that he would use every endeavour to tranquillise his distressed friend. I afterwards visited him myself, accompanied by Captain Rikord, on which occasion we, in some measure, succeeded in cheering his spirits. He discoursed reasonably, thanked me for my letter, and observed that he was unworthy of so much kindness. In the course of a few days he expressed a wish to take up his abode in a Kamtschatdale village, where, he observed, he could live more at his ease, as the sight of the Russians, whom he daily met with in Petropaulowska, constantly reminded him of his misconduct. It seemed advisable to allow him in this particular to follow his own inclination, and we hoped that time would heal the wounds which, in his present situation, every circumstance seemed to widen. Mr. Moor having obtained permission to remove, he began to make preparations for his departure, and purchased everything which he thought would be necessary for his country life. The individuals whom for his safety it had been judged necessary to appoint to look after him, concluded that their duty of watching would now, in a certain degree, be diminished.

"Mr. Moor was exceedingly fond of shooting, and when he went abroad to enjoy that diversion, one of the guards was directed to carry his gun, and to hand it him when he wished to fire, but never to leave him for a moment. One day, as he was out shooting on the shore of Awatscha Bay, he desired the soldier who accompanied him to return home to dinner. 'You need not fear,' said he, laughing, 'for if I wished to put an end to my life, I could do so at home with a knife or a sword.' The soldier obeyed. As, however, Mr. Moor did not return at his usual time, the man went in search of him, and, with horror, beheld his bleeding and lifeless corpse on the shore of the bay. His clothes were hanging on a post, and the gun lay by his side with a stick on the cock. He had apparently fired with his foot. His body was opened, and in the breast were found two pieces of lead, with which he had loaded the gun. He had left on a table in his apartment a paper containing the following singular expression:—'That life had become insupportable to him, and that, at certain times, he could even fancy he had swallowed the sun.'

"This unfortunate officer terminated his life on the 22nd of Nov., 1813, in the thirtieth year of his age."

The story which we have thus abridged from the volumes before us is as touching as it is true. It is, indeed, an example of the Romance of Reality; and its moral is obvious. The book in which it is found is one also of first-rate character; it contains particulars of Japan and the Japanese that ought to interest every one desirous of knowledge. Some of these we shall condense in the briefest manner.

The geographical situation of the Japanese possessions is, in respect to latitude, the same as that of the countries lying between the southern provinces of France and the south part of Morocco; their longitude is about 100° east from St. Petersburg, so that in the central part of Japan the sun rises seven hours earlier than in that city. The empire consists of islands, which are surrounded by the Eastern Ocean, and lie opposite to the coasts of Corea, China, and Tartary, from which they are separated by a broad strait, called the Sea of Japan, and, in the narrowest parts, the Straits of Corea. They are much subject to fogs, which, in the summer months, frequently continue three or four days without interruption. Clear weather is more continuous in winter. The Japanese consider themselves superior to all the other inhabitants of the earth, and the productions of Japan better than all others, and have feigned a tradition to account for it. They and the Kuriles are, in the opinion of Captain Golownin, descended from the same stock, and neither from the Chinese; though, owing to the wars between them, many families in Japan are of Chinese origin, derived from the prisoners of that nation. Emigrants from India, too, seem to have settled amongst them, and taught the faith of the Brahmins, now the creed of the predominant sect in Japan.

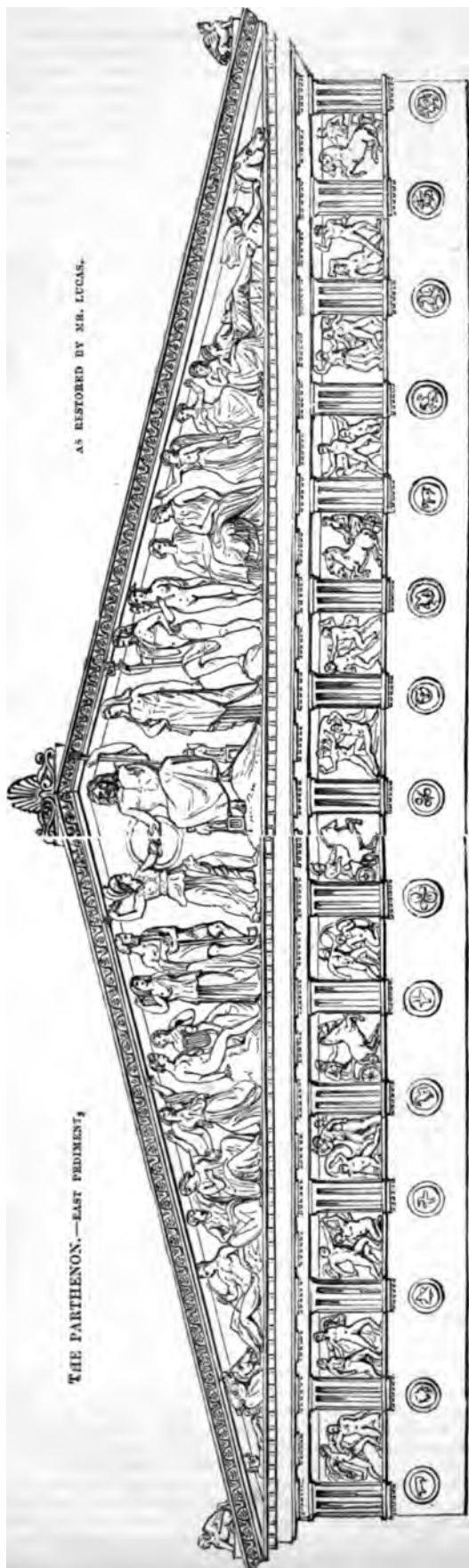
THE BRITISH MUSEUM.—THE ELGIN ROOM.—MODELS OF THE PARTHENON.

THE Parthenon, or Temple to the virgin goddess Athene, or Minerva, the protectress of Athens, built in the days of that city's highest grandeur and power, is admitted on all hands to be the noblest and most perfect work of architecture of which time has spared a or history preserved a record. Vestiges of the sculptures of the temple of a great people have for many years been known

visitors of the Museum as "the Marbles," so from their having collected and over to this by Lord Elgin thirty-five years of whom the purchased by ment.

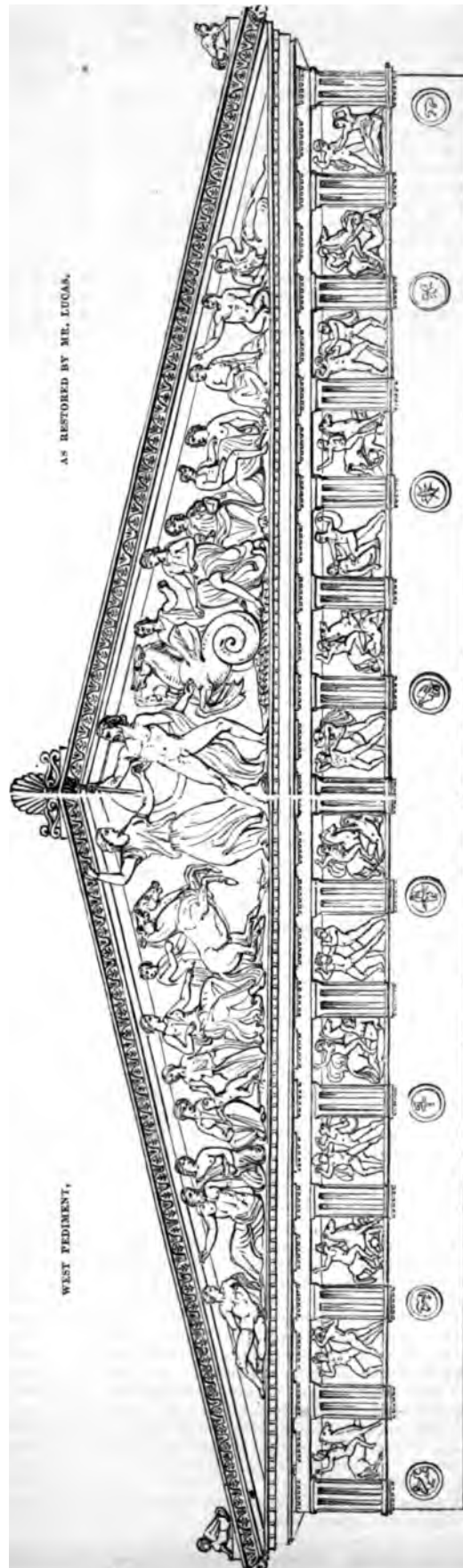
The interest precious relic lately been considerably increased by the exhibition in the room of two constructed by R. C. Lucas, the one of the Parthenon state of pristine the other as it is after the siege Venetians, in when, being in powder magazine the Turks, it was shattered by a sion. As these promise to be popular additions lately made Museum, we have gravely part of them — that Temple in its dated state; enlarged illustration the pediments together with the figures now remaining in either of the pediments. By the publication of a volume "Remarks," by R. C. Lucas, and embracing his studies and inquiries connected with the production of models, we are enabled to present our readers a full and accurate description of the perfect of the temple.

It is well known that the Parthenon is the most perfect example of the Doric style, and the noblest monument of antiquity, which was erected on the summit of the Acropolis at Athens, B.C. 445, in the flourishing and period of the republic, in the reign of her greatest man, Pericles, from the design of the greatest sculptor of the age, the most celebrated architect of the world, Phidias. Its dimensions were 227 feet in length by 101 in breadth, being more, as to the size than the nave of St. Peter's in the Vatican, and by 46 feet. The



AS RESTORED BY MR. LUCAS.

THE PARTHENON.—EAST PEDIMENT.



AS RESTORED BY MR. LUCAS.

WEST PEDIMENT.

see that the grandeur of the Parthenon was, by no means, derived from its extraordinary dimensions; again, it was considerably less than the new church of the Madeleine, at Paris, the dimensions of which are 328 feet by 138.

The Parthenon was constructed entirely of Pentelic marble, and, including a stylobate of four steps, was 66 feet in height it was called Hecatompodon, or the building of 100 feet. The exterior was composed of 46 columns, 35 feet in height, and 6 feet 2 inches at the base, with capitals 6 feet 7 inches wide; which, extending round the building, formed a species of ambulatory, of the width of 9 feet, to the wall of the cella.

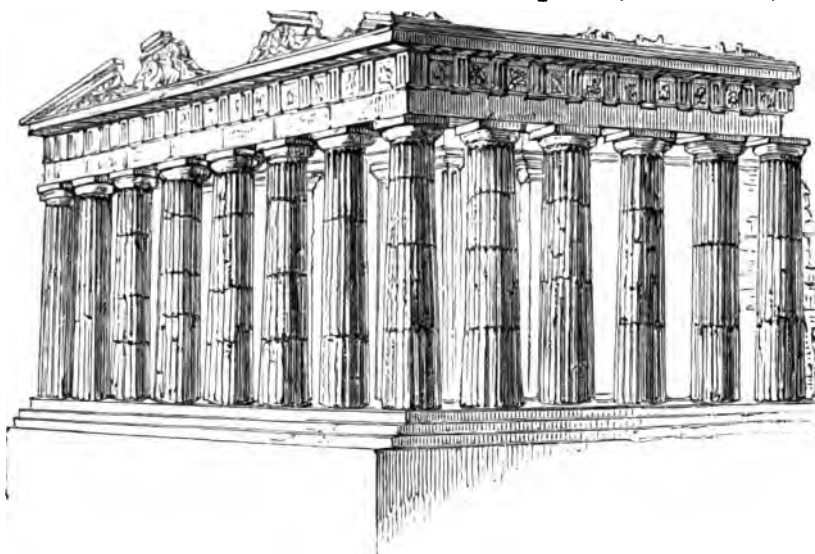
"Within the ambulatory or peristyle, at either end, there was an interior range of 6 columns, of 5½ feet in diameter, standing before the end of the cella, or interior chamber of the temple, and forming, together with its prolonged walls, a prothyraum or apartment before the cella door. There was also an ascent of two steps into this part of the building, which was called the Pronaos at the east, and the Posticus at the west end, and these apartments were level with the cella. The interior of the temple was divided into two unequal chambers: the western part was called the Opisthodomus, and was used as the public treasury; it occupied the length of 44 feet within the building, and its breadth was 62 feet and a half. The eastern part, called the Chamber of the Virgin Goddess, was in length 98 feet 6 inches, and its roof was supported by a double tier of columns, the lower of which measured 3 feet 6 inches at the base."

In this eastern chamber was placed the stupendous chryselephantine statue of its goddess, 39 feet high, exclusive of the pedestal; and whose

golden ornaments, on her vestments of ivory, constituted no inconsiderable portion of the riches of the nation. The internal appearance of the Temple was sublime; its external aspect, grand and imposing:—

"As wandering slow, in dread Minerva's fane,
Charm'd with the beauties of the land and main,
The past return'd—the present seem'd to cease—
And Glory knew no clime beyond her Greece."

"This beautiful building remained in all its integrity for 600 years; for Plutarch, who lived A.D. 118, in the time of Hadrian, speaks of its sculpture as having then all the beauty of freshness; and, as the barbarous conqueror Alaric respected the majesty of the Parthenon, we have no reason to infer that it sustained any injury from the hand of man till the sixth century A.D., when the supposition is, that the central portion of the eastern pediment was removed by the Christians, either from iconoclastic zeal, or in order to let light into the interior, which they had converted into a church. Of the sculpture then removed, not the least memorial exists."



PART OF THE RUINS OF THE PARTHENON, AFTER THE SIEGE IN 1687.

Strange to say, this wonder of art was unnoticed in Europe for nearly 1500 years, or till the year 1675, when drawings were made by Carrey of its beautiful sculptures then remaining; and to these drawings alone can we look for any information of the composition of the western pediment, or the general magnificence of the sculpture; for, in 1687, the cella was used as a powder-magazine by the Turks, at the time of their city being besieged by the Venetians, by whom a shell was thrown on the roof; this burst through, and caused an explosion of the combustible materials within, demolishing a portion of the side walls, with six columns on one side, and seven on the other, with several of the



HERCULES AND HECUBA.—FROM THE PARTHENON.

metopes, and a portion of the frieze. The western front was likewise then injured by the fire of the besiegers, as well as by their removal of some of the finest sculptures from the pediment, which, however, were broken to pieces. One of the Models shows the Temple as it appeared after this explosion.

In this state of dilapidation the Parthenon remained until visited by Stuart and Revett, the English architects, in 1751, who saw in the western pediment the figure of Ilissus and the torso of the group of Cecrops and Agraulus,—all that were left of the twenty-two statues which Carrey had drawn about sixty years before. The eastern pediment was left comparatively perfect, wanting nothing but the great central portion removed by the Christians in the sixth century. On their return to England, Messrs. Stuart and Revett published a magnificent work on Athens; this first gave to Europe a general knowledge of the sculptures of the Parthenon, which has been much increased by the researches of Col. Leake, Mr. Cockerell, and the Chevalier Bronsted.

The work of the dilapidation of the Parthenon was continued by the Turks till the visit of Lord Elgin, who removed the chief portion of the sculpture, now in the British Museum. It would otherwise have been destroyed by the Turks. "Still," says Mr. Lucas, "the removal of any sculpture would never have been contemplated by Lord Elgin, if the present period in the history of the Parthenon could have been foreseen, which is, that the Greeks, having achieved their independence, now use the edifice as a hall of science; and thus the Greeks of these later days, as did Alaric of old, revere the majesty of the Parthenon."

The only descriptive notice of the sculptural compositions left us by the ancients is the scanty notice of Pausanias,—that in the eastern pediment, the composition relates to the creation of Minerva; in the western pediment, to the contest of Minerva and Neptune for the territory of Attica. This notice, the drawings of Carrey, and the sculptures still remaining in the Museum, have been Mr. Lucas's main authorities in the restoration of the western pediment.

In the centre stood the figures of Minerva and Neptune, in grand contrasted action. This is from the remark of Pausanias; but Carrey's drawing shows it to be the victory of Minerva rather than the actual contest. To the right of the goddess was a chariot drawn by two horses, and held in by a draped female figure. At the side of the car stood a male figure, Erechtheus, of which the torso, No. 100, in the Elgin Room, is the only remnant. Then, a group of three personages: the goddess Demeter, draped and seated, and Persephone, draped and standing; the boy Bacchus between them. Beyond these are the majestic reclining torsos of Vulcan and Venus, or Hercules and Hebe, or Cecrops and Agraulus, of which casts have recently been sent to the British Museum from Athens. Next, in the extreme angle of the pediment, is the graceful figure of Ilissus; in the space between which and the group of Vulcan and Venus must have been some other figure, not in Carrey's drawing. In the opposite portion of the pediment, on the other side of the central group, is first a draped female figure in rapid action, to which, probably, belonged the magnificent cast lately placed in the Museum; between which figure and Neptune we must supply, as Welcker has shown, a car of hippocampi. Next to this female figure is Amphitrite, reigning in the hippocampi, corresponding with the female figure on the car of Minerva. Next to her is a seated female figure, draped, (the torso in the Elgin Room) with two naked children, known either as Latona and her children, Apollo and Diana, or as Leucothea, Melicerta, and Eros. Then, Aphrodite, seated on the lap of her mother Dione; and next is Pitho, crowning the former. Beyond these is a space, whence the sculpture has been removed. Then, a female figure, kneeling; and, in the angle of the pediment, Calirrhoe, as a female reclining figure, balancing the Ilissus in the opposite angle, and thus allegorising the two streams of Greece. Mr. Lucas refers to the conviction of consummate skill and daring on the part of Phidias left on our minds by this pediment: all is bold, free, and untrammelled; and in the groups forming one entire composition, we perceive the great principle in the design of Phidias,—namely, variety and contrast in unity. Though within the rules of pedimental composition, the idea of rule is lost in the perfectness of the result. The dissimilar size of the figures gives to the central group the importance of divinity; and the propriety of the treatment is evident, whether as an embellishment of sculpture, or as an architectural enrichment. The only parts of this pediment that have escaped destruction are the chest and back of Neptune, the torso of the god Erechtheus, a fragment of the breast and face of Minerva, the graceful figure of Ilissus, part of the group of Latona, and a fragment of the hippocampi. These are preserved in the Museum, as memorials rich in themselves, and also valuable as historical records; and their aid to Mr. Lucas's restoration is most artistically appreciated by him.

In respect to the eastern pediment, Mr. Lucas adopts the opinion of Flaxman, that the composition represents Minerva introduced to the gods on Mount Olympus; a view also taken by Mr. Cockerell, who has demonstrated that the fragment on the floor of the Elgin Room was the base of the statue of Minerva—a judgment in which M. Welcker entirely coincides. These fragments, now in the Museum, though in themselves the most important, and of all the remains of ancient art, the most justly celebrated, constitute but a small portion of the entire sculpture of the eastern pediment. They consist of seven distinct subjects—three groups, three distinct figures, and one part of the group of the Car of Night. In the south angle of the pediment are Hyperion and the Horses of the Day rising out of the sea, who seem to neigh with impatience—a fragment of great breadth and power. Next

is the figure variously known as Theseus, Hercules, Cephalus, or Cecrops, reclining in dignified repose; "above all other statues," says Mr. Lucas, "the most noble type of man." The next group is differently interpreted; Visconti considering it as Ceres and her daughter Proserpine; and Col. Leake, as the Attic Thallo and the Hora; the intention of Phidias in the treatment is, however, plain—the upraised arm of the mother is evidently directing the attention of the daughter to the event in the centre of the composition; the group is full of grandeur and beauty; and admirably adapted to its situation in the pediment.

The next figure, Iris, or the Messenger, Mr. Lucas considers as marking the space assigned by Phidias for the superior Divinities, as the corresponding space on the opposite side was filled by the figure of Victory; equally separating the ends of the pediment from the central composition, believed to have been composed of the grand assemblage of Divinities worshipped in Attica, and removed in the early times, from being so peculiarly obnoxious as records of an idolatrous worship. The next figure of Victory, not being equally obnoxious, was allowed to remain; and was followed by the splendid group of the Fates, which interpretation Mr. Lucas adopts in preference to those which regard these figures as the Hours, and as the Graces. Next was placed the figure of Selene, or Night; and to her car was, as an appendage, the magnificent horse's head in the Museum. "Of all this sculpture," says Mr. Lucas, "undeviating excellence is the marked characteristic; the only monument of human skill that is above human criticism or praise."

Thus, from the remaining fragments, from Carrey's drawings, and by supplying the blanks upon inference, warranted by their artistic propriety, has Mr. Lucas reconstructed the compositions of the two pediments. He has drawn from them the important lesson of suiting the size and projection of the figures to their places in the pediments; whereas, says Mr. Lucas, "I have the highest authority for stating that not one modern pediment has been constructed in accordance with the rules which this pediment of Phidias prescribes to us; and as to the sufficiency of this example as a rule, we have the united testimony of all authorities on the subject, that this pedimental construction contained the result of seven hundred years' experience—and that used by the discretion of Phidias." This is "a great fact" for the sculptors of our day.

By rules equally scrupulous and acute has Mr. Lucas proceeded in perfecting the frieze on the outer walls of the cells, from existing remains; supplying the missing metopes from coins and vases; and the replacement of the shields from different authorities; whilst the double row of interior columns is restored, and the goddess replaced in her shrine, as seen on the coins and gems. The polychromatic decoration of the interior is omitted. The frieze of the Parthenon—a procession in honour of Minerva—as a connected subject, was the largest and most beautiful ever executed; it was 524 feet in length: of the original, the British Museum possesses 294 feet, and casts of about 123 feet; the only part remaining on the building is that above the western vestibule; but, from these sources, and Carrey's drawing, the entire work may be understood.

Mr. Lucas adds:—"All the sculpture of the Museum from the Parthenon is of course included in this model, and also the drawings of Carrey; while the investigations of Bronsted, Cockerell, and Col. Leake will be aided by the elaborate drawings by De la Borde, who has spent the last year in investigating and preparing for publication the metopes now remaining on the Parthenon. To this must be added the recent arrival of the valuable casts, including all the architectural members, the noble group of Hercules and Hebe, and also the parts of twelve additional slabs of the frieze. We may, therefore, rest satisfied that every part of the Parthenon, as it now is, can have no more light thrown on it. The case is different as regards the parts lost by the explosion, as in the number of the French Archaeological Journal, published in May, 1845, a notice and two engravings are given of a head, stated to have been that of the Victory in the western pediment, brought to Venice by an officer who served under Morosini. It ornamented some garden edifice for the last century, and it is now an object of competition to obtain the same for the various museums in Europe.

We have engraved the Hercules and Hebe, of which figures casts have been placed in the Elgin Saloon. These are the only figures now remaining in either of the pediments of the Parthenon; they belong to the western pediment, where (according to some) they formed the group placed next to the reclining figure of Ilissus, which occupied the extreme angle.

At the time Lord Elgin removed the other figures, these were in considerably better condition than at present; both heads have since perished; the reason they were allowed to remain was that the upper portion was supposed to be a Roman restoration: the group is, certainly, formed of two blocks of marble, the union of which may be distinctly traced in the drawing; but the same grandeur of style is perceptible in the one part as in the other, placing the authenticity of the work beyond all doubt.

The engravings on the next page represent portions of the frieze of the Parthenon, being casts from blocks more recently found in Athens, and which were added to the national collection in 1845.

No. 1 consists of attendants leaving the victims for sacrifice; No. 2, male figures bearing vases. The figures in these groups move from right to left, whereas in groups of a similar character before in the Museum, they move from left to right; these therefore belong to the

side of the Temple, all the sculptures of the frieze of which had appeared before Lord Elgin was in Athens, though they were known to have existed formerly from drawings made by Currey, and afterwards by Stuart, who represent portions belonging to the series.



PART OF THE FRIEZE OF THE PARTHENON.—NO. 1.

Professor Welcker bears the following testimony to the value of our section:—"The British Museum possesses, in the works of Phidias, a treasure with which nothing can be compared in the whole range of ancient art. Homer belongs to all civilized countries and all educated



PART OF THE FRIEZE OF THE PARTHENON.—NO. 2.

individuals; but the Homer of the plastic art is, in a certain sense, to be found in the works of Phidias alone; and, among his works, the sculptures of the Pediments stand pre-eminent; and, formerly, they were so, in their separate combinations. The individual figures in each composition acquire, by their position, the character and meaning by which they are to be estimated; and the greater the genius which produced them, the more important it is to comprehend the thoughts and intentions, as expressed in the whole and in all its particulars."



COPENHAGEN, FROM FREDERICKSBURG.

THE DANISH ISLES.*

THE Danish Isles have figured oftener lately in army bulletins than peaceful poetry. Apart from their burly soldiers and hardy sailors, the isles in themselves are not remarkable for beauty of scene, fertility of cultivation, or any of the living signs of modern civilisation. What strikes the traveller most markedly in Denmark are the barrows and funereal mounds of generations long extinguished—the lonely character of the heathy tracts, where visible life is confined to enormous flights of birds, and roads which may one day be practicable for modern carriages, but which at present are far from facilitating travel. Deriving its revenues from no activity in manufactures, the country is motionless in most practical advancements, and has been celebrated lately for the bravery of its defenders, the talent of its literature, and the renown of its heroes in arts and sciences.

The most interesting sketches to be drawn of Danish life at present are not, therefore, those which treat merely of the capital, its more modern features, and the character of the upper class of people; whose originality of thought or dress can never be preserved where facilities are given to speedy intercommunication. The originality of Danish life and customs lies in the fiords and islands along the coasts—spots over which centuries have passed without altering their look, or the habits of the people; where manufacture, such as it is, is as much confined to given forms by habit as it is in China by law; where no strangers make their appearance save at the rarest intervals, and where the strangest ideas of exclusiveness hold an indomitable sway.

To these peculiarities or striking features of Denmark and its provinces, the author of "Sixteen Months in the Danish Isles" has not given us any access—indeed, his title might be called a misnomer, for his descriptions are confined to the principal island of the Danish group, namely, Iceland, and some of the neighbouring islets which stud the Sound. Further he has not gone; still we may yet find sufficient in his pages to extract, and amuse the reader.

The barrows are a great feature in a Danish landscape, and in the chief island of Denmark they abound as much as on the coasts of the "Mani." The following will not be new to an antiquarian, but is likely to afford information to the many:—

"The pagan period is divided into three ages; the stone, the bronze, and the iron. The remains from those three ages are articles for domestic, idolatrous, ornamental, and warlike uses; with the introduction of Christianity came naturally a multitude of ecclesiastical relics. The stone period is so called because metals then seem to have been altogether unknown, and stone to have been the sole agent in use for all manner of instruments, aided, merely, by wood and clay. Stone was thus not only the stuff of which each article was made, but also the solitary instrument for making the articles; in a time when no metal was known, they were obliged to chip and grind one stone against another. This is evidently the earliest stage of a nation's civilisation. Very curious are those relics, being naturally, although the oldest, the best preserved of all. There are knives, and hammers, and axes, all formed as well as might be, and sharpened as much as circumstances would permit; curiously indented on the sides, showing the marks of the chisel, as if done a few weeks ago. Then there are the implements themselves; grindstones, wedges, chisels, mostly made of flint, besides many miscellaneous utensils, arrow-points, spear-points, sling-stones, balls, and corn-grinders. All the first-mentioned are made for insertion in wood, thinned off at one end to fit into a handle; or some,

* "Sixteen Months in the Danish Isles." By A. Hamilton, BENTLEY, 1852.

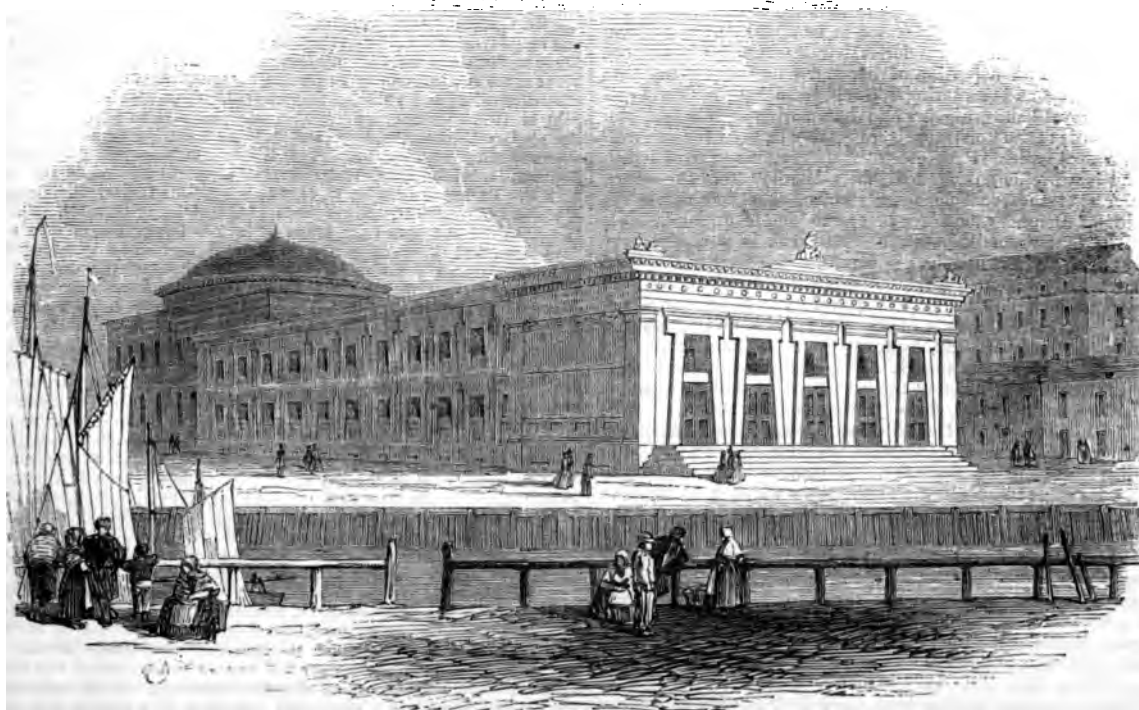


CONFIRMATION DRESS.

BRIDAL DRESS.

FISHERMAN'S WIFE.

COSTUMES.—ISLAND OF FANOE.



THE THORWALDSEN MUSEUM.

such as the hammers, pierced for the handle to go through. Besides these smaller matters there are urns and grave vessels, found in the tombs, of course, to hold ashes. Ornaments, such as necklaces of amber, are frequent. The second division of the paper, or heathen period, is the so-called bronze age. It is a matter of fact, that copper was a metal known to the Germanic nations before iron had been heard of; and as they were in the habit of mixing it with a little tin, the compound has received the name of bronze. It is not to be imagined that these bronze articles were imitations of the Roman, inasmuch as they are found just on the provinces most remote from Roman influence, Scandinavia in particular. There are in abundance swords, battle-axes, daggers, spears, arrow-points, shields, helmets, war trumpets, spurs, bits, and other horse-gear; knives, saws, drinking-cups, vases, spoons and keys—all bronze, occasionally ornamented with gold. Large rings of pure gold and immense value have been found, too wide for the wrist, and rather too small for the neck, not to speak of their weight, which is enormous. On one side there are two excrescences, which would also make them inconvenient for wear; they are supposed to be the rings used in swearing, of which mention is made in the Sagas. Magnificent drinking-horns of the purest gold have been met with, of which the value is incredible; they measure near a yard in length, and are most elaborately ornamented with figures of all kinds. The hair ornaments are remarkable for their size and specific gravity; there are metal crowns and helmets, in wearing which the ladies of those days must, like Anderson's mermaid, with the live oysters sticking to her ears, have borne some inconvenience for the sake of the fashion. The third division is the iron age. It soon superseded bronze, particularly as it is found in such abundance in Scandinavia. There seems to have been a transition time, when swords and spears of bronze have iron edges; when the latter metal must still have been more valuable than the former.

"Glass was evidently a commodity of great scarceness and value. Beads of glass are indeed found at early periods; but larger articles, as vases and cups, seem to date from the iron age. They may also have been used for containing the ashes of the dead.

"Fragments of incense have been discovered, and incense pots, the remnants of the old heathen worship."

Such are the remains which are found in barrows and tumuli of various forms all over Denmark. It is by no means uncommon at this time to find oyster-shells in heaps laid in the interior of these mounds, where the bronze swords, or stone and iron ornaments, of which mention has been made, are also deposited. There is great difficulty, however, in searching these ancient tombs. The peasantry have a laudable superstition which prevents them from seeing with pleasure their opening. It is also a matter of some difficulty to obtain access to the aperture by which the exit was allowed from the tomb after the dead and appropriate utensils were laid there for ever; and unless that particular point is hit on, the labour is scarce repaid by the result. There are a few specimens of excavated tumuli which are frequently visited. Now that the finder of ancient ornaments gets paid for bringing them to the National Museum, instead of being forced to do so as of old, with but slight hope of reward, the Danish collection of these curiosities is greatly on the increase. The king of Denmark, who is himself fond of antiquities, often stops to visit the opened mounds.

"In 1850, his Majesty caused a tumulus to be opened near Scöborg (not far from his royal castle of Fredericksborg), where he had a tent stuck up, and where, with a portion of his suite, he spent many days and nights excavating and exploring himself, handling the shovel and pickaxe with his royal hands, digging and hammering with might and main, until the lords of the household were getting tired of the service."

Elsmore is a spot which is replete with associations to the English mind. Our author, in his anxiety to dismiss Hamlet from the scene, tells us of him what most people already know, that he was not the son of the king of Denmark, but of a petty sub-king of Jutland. It is not the less true that a small granite obelisk exists in a shady grove near Elsmore which we have had the pleasure of seeing, and which, even though it may not be of much historical value, was worthy of at least a passing notice. It is called Hamlet's grave. The Kronborg, which commands the Sound, the legends of Holger Danski, and the wrongs of the unfortunate Queen Matilda, however, engrossed attention to the detriment of the Prince of Denmark. It is scarcely necessary, nowadays, to express merely a belief in the innocence of that unfortunate princess; history has already done justice to her memory. She fell a victim to the wiles of the Danish Queen Dowager, and the apathy or low depravity of her husband, Christian the Seventh. The room in the Kronborg in which this unfortunate British princess was confined may now be seen. Its aspect is as gloomy as the story which it illustrates.

One of the curiosities of Copenhagen is the Round Tower, to the top of which you ascend by a spiral road.

"Peter the Great once drove a coach and four to the top, whither, I think, lighter-built *facres* might be permitted to convey the infirm, who else cannot enjoy the view. The prospect of the city and its suburbs is very good, and it is worth while to see the studio of so resolute an astronomer as Tycho Brahe. Whether the instruments are the same he had, I do not know; I only got a peep at them from the outside through the window. When young, Tycho had, at a Christmas party, a quarrel with another Danish nobleman; whereupon they both drew their swords, and Brahe lost his nose. Mat. Lewis tells a story of a negro, whose nose an angry comrade had bitten off in a squabble. The overseer, meeting the poor fellow soon after, cried out, 'What, Sambo; where is your nose?' To

which he calmly replied, 'I don't know, Massa; I look everywhere about, but I could not find it.' I suppose Tycho's was equally irrecoverable; for, it is said, he had one made of gold and silver, so cleverly stuck on, that it was not to be distinguished from genuine skin and bone; and lest it should fall off, he constantly carried cement in his pocket."

In the Church of our Lady at Copenhagen are Thorwaldsen's celebrated colossal statues, of which the following amusing anecdote is told.

"It had been designed to place the statues of the Apostles in niches, like that of our Saviour, but the sculptor was made aware of this, and made them all too large, thus compelling the authorities to range them at perfect freedom."

It is a curious fact in Danish manners, that "there is the most striking difference shown between the reception of a visitor who comes in a carriage, and one who comes on foot. The theory is, that when a man arrives on foot, he must be so intimate with the locality as to be able to find his way to the penetralia of the house without assistance, particularly as all doors stand open, and as it is quite in accordance with Danish manners to go out and in other people's houses *ad libitum*; or else he must be a beggar or a vagabond."

There are some pleasant sketches in this book of the literary, artistic, and scientific men of Denmark,—of Thorwaldsen, Oehlenschläger, and others of equal note; but for these we must refer the reader to the book itself. Our last quotation must be the description of Roeskilde Cathedral, the St. Denis of the Danes.

"It would not be easy for any one to be aught else than solemnised in the cathedral of Roeskilde, with the many memorials of death, and the vanity of earthly greatness before one's eyes. It has long been used as the burial-place of the kings and royal personages of Denmark. Behind the choir are some magnificent monuments to former departed princes: the later deceased are buried in a chapel to one side, but the dust of Denmark's monarchs is laid aside in much greater pomp than in any other land. On looking through the gate into the chapel I refer to, one sees a multitude of gorgeous coffins, or rather sarcophagi, ranged alongside one another, blazing with golden ornaments; and the tombs of marble elsewhere in the cathedral are very splendid. Not merely the present dynasty, which has sat upon the throne 400 years, but members of much older dynasties have been put here to sleep. The mortal remains are preserved in such splendour, and are so openly exposed to the gaze of the world, that I should think the feeling would be a desire, if possible, not to be the last."

SUBSCRIPTIONS TO THE GREAT EXHIBITION, 1851.

THE first report of the Commissioners of the Exhibition of 1851 contains, amongst other interesting historical details, some curious facts in reference to the subscription lists. The total amount reported to the Commission was 79,224*l.* 13*s.* 4*d.*; but the sums actually paid into their bankers' hands was only 67,896*l.* 12*s.* 9*d.* Thus, more than 11,300*l.*, or nearly fourteen per cent., never found its way to them,—being either unpaid by the original subscribers or retained by the local committees to cover the expenses of management. When the lists are looked at more closely, there appear certain very unaccountable instances of large returns to the public and but small returns to the Bank. For example, Marylebone, warned by the eloquence of Mr. Cobden, published a list of subscriptions amounting to 1,237*l.* 10*s.* 4*d.*; which gave it the seventh place in the general list—that is, after London, Westminster, Manchester, Glasgow, Leeds, and Bradford. But the amount actually forthcoming was only 547*l.* 13*s.* 3*d.*—being less than was paid in by such fourth-rate provincial towns as Blackburn and Bolton. Generally speaking there is a wide difference between the two amounts in the London districts. South London, for instance, subscribed 940*l.*, and rendered account 619*l.* Greenwich subscribed 276*l.*, and paid in 196*l.* Finsbury subscribed 313*l.*, and paid in 205*l.* But in some of the country districts the difference looks more glaring than in the metropolis, the sums being much smaller. Thus, it seems to have cost the people of Ashborne 4*l.* 2*s.* to send the Commission 1*l.* 11*s.* Crewkerne sends 10*l.* and keeps back 4*l.* Rochester sends up 1*l.* 0*s.* 8*d.*, and retains 7*l.* 11*s.* 4*d.* Great Marlow sends 8*l.* and retains 7*l.* Ripon sends 15*l.*, and keeps back 10*l.* But the case is equally flagrant with some towns of greater importance. Truro subscribed 110*l.* 10*s.*, and this was quoted by Cornish men as an instance of loyalty and liberality in a town with only 11,034 inhabitants;—but the returns now printed show that "the Duke of Cornwall's men" have paid no more than 4*l.* 8*s.* 8*d.* to the Commissioners, while they have kept the other 106*l.* 1*s.* 4*d.* in their own pockets. In like manner, Dublin is set down in the printed lists at 406*l.* 4*s.*; but the bankers' book shows that of this gross total it has paid up only a single 5*l.*-note,—all the rest being used for "expenses." All the Irish towns exhibit large discrepancies. Even Belfast, the best of them, charges 281*l.* for sending over 300*l.* In some English towns of reputation there are differences which it seems difficult to account for on any satisfactory principle. We can scarcely understand why it should cost Birmingham 396*l.* to collect and transmit to London 500*l.*, while Bath can forward 200*l.* at an expense of 3*l.* 1*s.* We find some places in the list which have retained the whole amount of their subscriptions. In this class we notice Bakewell, Halsted, East Retford, St. Helens, Wexford, and Wallingford:—yet we remember reading in the newspapers of the time a very dashing report of a meeting in the first-named town, at which a duke, an earl, and sundry lords and ladies took an active part. There are several towns in which committees were formed, which, it now appears, have made no subscription at all. Among this class we find Richmond, Burnley, Carnarvon, Lanark, Luton, &c. Against these, however, there is a pleasant set-off in the fact, that numerous places forwarded every shilling subscribed to the Bank. If we look at what may be called the comparative physiology of these subscription lists, more than one inquiry will suggest itself. Nearly half the amount raised was given in London and its outlying districts. Of the remainder it now appears that more than a moiety was subscribed in a narrow strip of country lying between the mouths of the Humber and the Mersey. Thus, from a number of towns containing perhaps less than a twelfth of the population of these islands came more than two-thirds of the money for the Exhibition.



CHEVAL SCREEN IN PAPIER MACHÉ.

BY JENNENS AND BETTRIDGE.

We have this week great pleasure in publishing a successful effort in decorative art manufacture, which has just been completed by Jennens and Bet-

tridge, namely, a cheval screen in papier maché, manufactured expressly for the Earl of Kintore. It is a very handsome production, and one of the first instances of the application of this material to a piece of furniture of such a form. The picture enclosed is a view of Keith Hall, the seat of the noble earl.

Miscellaneous Notices.

PHOTOGRAPHY.

Our readers will remember a recent notice in our columns of the proposed formation of a Photographic Society. Difficulties connected with patent rights have been the principal obstacles to its constitution, but now learn that these are in a fair way of being removed, as Mr. Talbot, we are informed, having agreed to abandon his patents, provided he be retained to do so by the general voice of the artistic and scientific world, a memorial to that effect has been prepared for presentation to him, and is awaiting a signature.—*Athenæum*.

AFRICAN EXPLORATION.

It seems that by a clause in the contract recently entered into with the Government for the transmission of maps between England and the coast of Africa, the company is bound to send a small steamer up one of the African rivers, for the joint purposes of discovery and trade, at the charge of 4s. per mile.

NEW CONCERT HALL FOR OSBORNE.

The Queen intends to have a new concert hall erected at Osborne, and, to that end, has sent Sir Charles Barry to study some of the most approved plans at present in existence. Sir Charles went down to Liverpool the other day with that view, and examined the Philharmonic Hall there.

BOOKS FOR WORKHOUSES.

The Poor Law Commissioners, with a view to the introduction of suitable books into workhouse schools for the use of scholars and teachers, have made arrangements with several publishers to supply for the use of such schools books and maps, at prices varying from 32 to 55 per cent.—the average being 43 per cent.—under the price at which, as we believe, the same books and maps are sold to the public. Among the subjects embraced in the list of books made out by the Commissioners are, reading lessons, grammar, arithmetic, geography, English history, mensuration, vocal music, &c. Workhouse schools requiring these works are to transmit a list to the

Poor Law Board, who will direct their booksellers to supply such as may be ordered.

STATUES TO TITIAN AND REMBRANDT.

From Venice it is stated that the Emperor of Austria has determined on the tardy erection in that city of a monument to the memory of Titian, the great painter who has contributed so much to its glory. He has given a commission for the work to two young Venetian sculptors, brothers, the MM. Zandominif. It is to be in marble, and placed in the Church of Santa Maria, fronting the monument to Canova.

At Amsterdam, the colossal bronze statue of Rembrandt, the work of M. Hoveens, has been placed on its pedestal. The names of the 460 subscribers, at whose cost the work has been executed, were inscribed on parchment, and inclosed in the pedestal. At their head is William the First as Duke of Nassau, William the Second as King of the Netherlands, and William the Third as Prince of Orange.

DEATH OF VAN GEEL, THE SCULPTOR.

The Belgian papers report the death in solitude and misery—the results of a mental disease which many years since arrested him in the full career of honour and fortune—of the sculptor Van Geel. Van Geel was one of the last representatives of the school of David, and was the sculptor of the Lion of Waterloo.

THE WORKING MEN'S MEMORIAL OF PEELE.

A sum of 1745*l.* was gathered together after the death of Sir R. Peel by the working men of England as a memorial of that statesman's services to the nation in "untaxing bread." The subscriptions were numerous, as may be judged from the fact that the large sum above-mentioned is an aggregation of pence. Mr. Hume, as chairman of the Memorial Committee, gives the following as the determination of that body as to the use to be made of the fund.

The annual income of the fund is to be appropriated to the purchase, binding, and stamping of books useful to working men, comprising works upon history, mechanics, arts and sciences, and general literature, suitable to the working classes.

Each of these books shall be bound in an appropriate cover, and each chapter impressed with a distinctive and appropriate stamp.

Applications shall be received from all public libraries, mechanics' institutions, reading rooms, and literary associations in the United Kingdom, where the working classes have access (gratis or at a small charge) to all such books.

And a preference shall be given to all towns and places from which the subscriptions have been received.

The annual distribution or gift of such books shall be in the discretion of the corporate body, according to rules to be prepared by the committee and stated in the trust.

The binding of each book shall be appropriate, and shall denote that the book has been presented to the particular library, &c., as a memorial of the late Sir Robert Peel, from a fund subscribed by the working men of Great Britain to commemorate that statesman's successful efforts in giving to the population of this empire untaxed bread, and that the same or a similar appropriate notification shall be upon the stamp.

COMPLETION OF THE LOUVRE.

Louis Napoleon will lay the first stone of M. Visconti's re-edification of the Louvre on the 1st of June.

To Correspondents, &c.

A SUBSCRIBER, DEVONSHIRE, is thanked. Articles on Natural History, illustrated, will occasionally be given in the "PEOPLE'S ILLUSTRATED JOURNAL."

W. B. cannot do better, as a beginning, than study H. Law's "Rudimentary Treatise on Civil Engineering," in Weale's cheap series.

"The Workshops of England."—We are making preparations in the manufacturing districts for carrying out this useful series of papers, with a copiousness of detail and illustrations commensurate with the importance of the branches of industry respectively treated of.

THE TURP AND THE BETTING-HOUSE NUISANCE.—Our observations upon this subject will be resumed shortly; when we shall have something like a definite proposition to advance for the abatement of a crying evil.

"The New Houses of Parliament."—Further illustrations, &c. are in preparation.



FRUIT PIECE.—BY LANCE.

Mr. LANCE stands so high in the painting of fruit and still-life subjects, that he may almost be said in himself to comprise a school in that style. The above work is a very fine specimen of his talents. The outline of the various objects is

bold and truthful, and when combined with the aid of colour, which in engraving we cannot give, the effect is gorgeous and satisfactory in the highest degree. The disposition, also, of the various objects shows great artistic taste.

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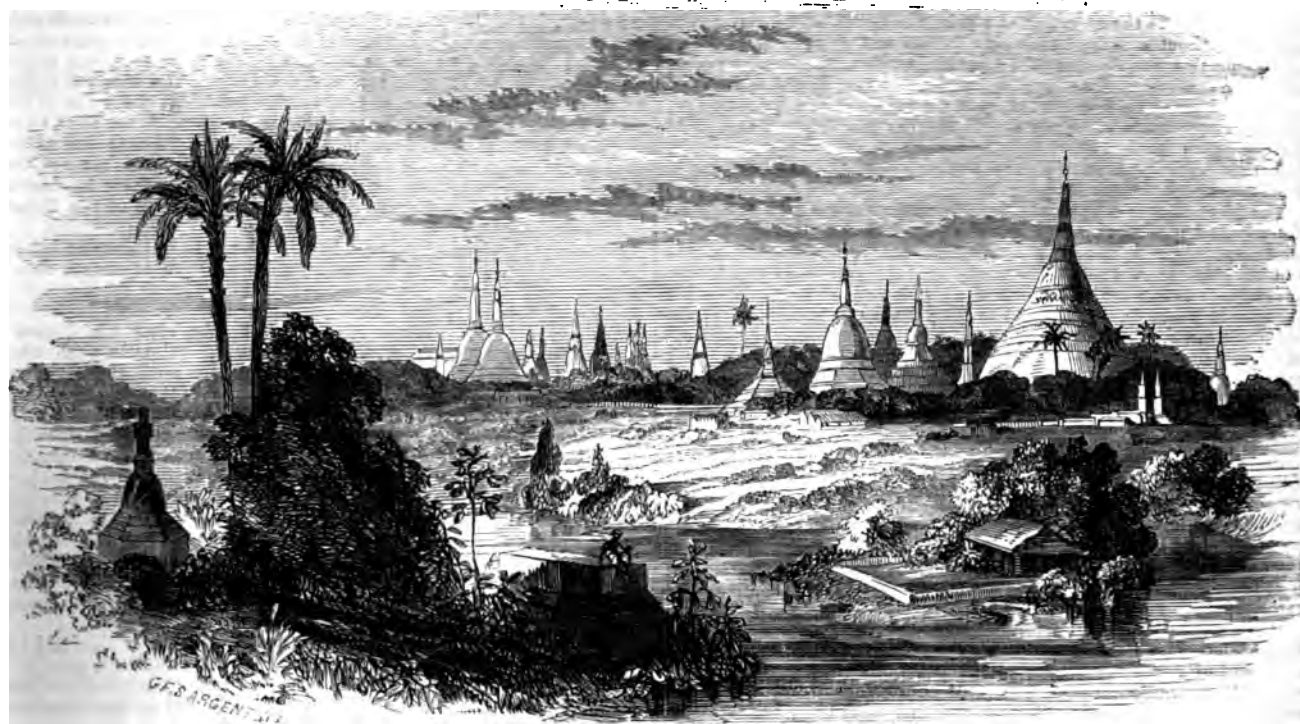
SATURDAY, JUNE 12, 1852.

PRICE TWOPENCE.

THE BURMESE WAR.

ON the 10th of May, 1824, a British fleet might have been seen at anchor inside of the bar of the Irawaddi river, which leads up to Rangoon, the seaport capital of the Burman empire. There were her Majesty's sloops, Larne, Captain Marryatt; and Sophia, Captain Ryves; the Diana, steamer; her Majesty's frigate, the Liffey, Commodore Grant; and the Slaney, sloop of war; besides several cruisers of the East India Company, and transports, carrying the 38th and 18th regiments; the second battalion of the 20th, now 40th native

Indian infantry; the 41st and 89th regiments; seven battalions of Madras native infantry; the Madras European regiment; two companies of Europeans, and four companies of native artillery, besides golandas, gun Lascars, and pioneers; making a total of eleven thousand four hundred and seventy-five fighting men, of whom nearly five thousand were Europeans. The object of this force was to chastise the rulers of the Burman empire for their presumption in making sundry inroads into the territories of the Bengal presidency, and for committing excesses, which were followed by insult when redress was demanded.



RANGOON.—BURMAH.

The Burman empire at this time was an imposing, though an ill governed state. It comprised not only that portion of it which now holds the name, but was further swelled in size by the occupation of Assam, Kachar, Arracan, and the Tenasserim provinces. Towards Arracan our settlements extended as far only as Chittagong, a valuable seaport, whilst on the Assam and Cachar frontier, which at that period, indeed, was somewhat undefined, the country was ruled by petty rajahs and princes, in whose affairs the Burmese pretended a right to intermeddle. It required the accumulated insults of many years before the British authorities thought it necessary to take active measures for the punishment of the arrogant rulers of Ava; and a desultory warfare had been carried on for some time on the frontiers of Assam, Cachar, and Jyntea, before it was thought proper to attack the enemy in the heart of his own dominions. At the same moment, and whilst directly invading the country of the Burmese, it was considered expedient to prevent any assistance being derived from the Siamese, who border on Burmah at that end of the empire which is opposite to the English frontier. Our forces, therefore, were thus divided. Several thousand men were moved from the inland frontier towards Assam, and a force under General Morrison invaded Arracan from the side of Chittagong; the important point of Martaban, on the Tenasserim coast, was also attacked, whilst Rangoon became the object of the chief hostile movement. It was for the purpose of

capturing the latter port, and from thence advancing gradually towards the capital of Ava, that the fleet we have described anchored inside the bar of the Irawaddi. The town of Rangoon is situated on the northern bank of the Irawaddi, where it makes a bend from east to west, about twenty-eight miles from the sea.

"It extends for about nine hundred yards along the river, and is about six or seven hundred yards wide in its broadest part: at either extremity extend unprotected suburbs, but the centre, or the town itself, is defended by an enclosure of palisades ten or twelve feet high, strengthened internally by embankments of earth, and protected externally on one side by the river, and on the other three sides by a shallow creek or ditch, communicating with the river, and expanding at the western end into a morass crossed by a bridge. The palisade incloses the whole of the town of Rangoon in the shape of an irregular parallelogram, having one gate in each of three faces, and two in that of the north. At the river gate is a landing-place, denominated the king's wharf, in which situation the principal battery was placed."

The fleet sailed up the river and met with no resistance. The Burmas fled at the first advance of our troops, and in twenty minutes the town was in British hands. The plans then carried out by the enemy were, to erect stockades round about the position which had thus been taken up, and force us to retire or fight many a weary battle before we could advance from what they knew to be an unhealthy position. In these

plans the Burmas were partially successful; but though disease thinned our ranks, and in the course of the war as great a number of men was lost as composed the first corps that landed, the bravery and pertinacity of our troops cleared every obstacle. The enemy were gradually expelled from their strong positions, for they never ventured to fight in the open field, and gradually our force crept up the Irawaddi, until it seemed that it would dictate terms at the gates of Ava. Nor were our successes confined to the defeat and humbling of these, the immediate defenders of the Burman territory. Our troops in Assam drove their enemies away and dispersed them. The whole of Arracan was occupied by our men and the capital stormed; the province of Bassein was taken, and Martaban, with Tenasserim, appropriated to our use. All these reverses humbled the pride of Ava, and a treaty was concluded ignominious in every way to the rulers of the country.

"By this treaty, the Burman government engaged to abstain from all interference with the affairs of Assam, Kachar, and Jyntea; to recognise Gambhir Singh as Rajah of Manipur; to receive a British resident at Ava, and depute a Burman resident to Calcutta; to concur in a commercial treaty; to cede, in perpetuity, the four provinces of Arakan, as divided from Ava by the Anupetumien mountains, and the provinces Yeh, Tavai, and Mergui, to the south of the Sanluen or Martaban river, and to pay a crore of rupees, in four instalments, until the receipt of the second of which, Rangoon was to remain in the occupation of the British.

"The treaty was concluded on the 24th February, 1826. On the 26th a deputation, consisting of Captain Lumsden of the horse artillery, Lieutenant Havelock, deputy assistant adjutant-general, and assistant-surgeon Knox, were sent on a complimentary mission to the capital with conciliatory presents, which might be interpreted by the wounded pride of the court as a profession of inferiority. After a passage purposely protracted, the delegates arrived at Ava, and on the 1st of March were presented to the sovereign at a public audience. The ceremonial was not without dignity, but it was formal and cold, and no direct communication was vouchsafed by the king: refreshments were placed before the officers, some trifling presents were interchanged, and honorary Burman titles conferred upon the members of the deputation, and the king withdrew. Early on the 3rd, the deputation returned to the camp; on the 7th, the Commander-in-Chief, with the first brigade, embarked in boats from Yandabo and proceeded down the river to Rangoon, where General Campbell arrived on the 24th of March."

The first instalment of twenty-five lacs of rupees was paid at once on the conclusion of the peace; but the stipulation as to a commercial treaty was never fulfilled. Mr. Crawford went on a mission, at the end of 1826, to Ava; but his report did not encourage the Indian government to enforce that article of the treaty which provided for the permanent presence of a British envoy at the Burman capital. It was not until the end of 1829, when some delay occurred in the payment of the instalments of the contribution due, and some differences relating to the boundaries between the two states were thought to require the personal interference of an accredited agent, that an officer was again nominated to the duty; and Lieut.-Colonel Burney, who had recently returned from a special mission to Siam, was sent to Ava, where he continued to reside for several years. In the meanwhile the king had fallen into a state of imbecility, and the court became a scene of Eastern intrigue, which ended in a revolution, by which Tharawadi, the king's eldest brother, ascended the throne, and celebrated his accession by the murder of all his relatives, notwithstanding his promise to Col. Burney that their lives would be safe. The policy of Tharawadi was hostile to England from the commencement. Mr. Wilson, in his "Narrative of the Burmese War in 1824-26," says:—

"The conduct of Tharawadi, who was intoxicated by his success, in thus violating his most solemn promises to the resident, and his utter disregard of the remonstrances of the latter, was only part of a policy of which he made no secret,—his determination to get rid of the residency altogether. He not only declared in council, but explicitly stated to the resident, that he did not consider himself bound by the acts of his predecessor, and that he did not acknowledge the treaties made by his brother with the government of India, replying to the argument that the treaties made with the British government were not personal with the late king, but perpetual with the Burmese nation by whomsoever governed, by saying, that such might be the English custom; it was not the Burmese; that the Burmese officers had been frightened into signing the treaty of Yandabo; that it contained everything for the English and nothing for the Burmese; that the late government had never shown him the whole of it, and that at all events the English had not conquered him, or made the treaty with him, and that he was determined to have nothing to say to it. These declarations, made publicly on several occasions, the loss of all personal influence with the king, and the resident's repugnance to appear even to countenance by his presence the acts of violence and barbarity which were daily perpetrated, induced him at last to apply for permission to withdraw from Ava to Rangoon, on the plea of impaired health, having reported to the government of India the state of affairs, and purporting to await instructions at Rangoon. This was exactly what Tharawadi desired, who took great credit to himself for having effected the removal of the resident without adopting any of those violent proceedings for the purpose to which he had been repeatedly urged by many of his adherents. Colonel Burney accordingly quitted Ava on the 17th of June, 1837, accompanied by the European traders and American missionaries who had been established there, and who found they could not remain with safety."

An attempt was subsequently made to appoint another resident, but the attempt was a signal failure; and since the year 1838 the conduct of the kings of Burmah and their subordinates has been growing more and more insolent to the British trading in those parts. In the meanwhile, the possessions wrested from the court of Ava, after the conclusion of the first war, have been turned to profitable account by the East India Company. Assam, which we annexed, encloses an area of from 18,000 to 20,000 square miles, with a population of 500,000 souls, and a fertile country. It owes its present celebrity to the foundation of a tea-growing establishment, which is successful. Besides this, Assam yields coal in abundance; and its soil produces rice, sugar, pepper, and cotton. The people, however, are indolent, and the country is considered to be at least a century behind Bengal.

Arracan has many good harbours, the chief of which is Akyab; its length is about 500 miles, whilst its breadth varies from 40 to 80 miles, with a population of 250,000 souls. The territory is capable of yielding every tropical product; but when it came into the Company's hands was in such a wild state as to require every sort of improvement. There is now a great trade in salt along its numerous creeks. Teak and other valuable woods for ship-building are abundant, and rice, which is now the staple product of the country, is exported in great quantities. Besides these, its paddy, timber, buffalo horns and hides, elephants' teeth, oil, sugar, tobacco, silk, cotton, and wax appear in the returns of exports from Bengal for a considerable sum. Tenasserim, of which the capital is now the thriving city of Moulmein, is divided from Siam by a high range of mountains, and Burmah, as we have already said, interposes between it and our possessions of Arracan. There the teak timber-trade and ship-building are carried on with a vigour almost unexampled. Tobacco, sugar, cotton, hemp, indigo, and pepper are also produce of this country, which now has a direct trade with England.

As regards the Burman empire as it stands at present, its trade with our presidencies chiefly consists of timber, opium, and sundries, in exchange for which, we give as much as we can of cotton-piece goods, and impart to it a share of our stores of grain. The conduct of the rulers of Ava has, however, of late much diminished the value of the trade, and the number of ships touching at Rangoon. Since 1845, when the king, Tharawadi, resolved to announce his legitimate son as his successor, a step which was followed by the revolt of another son, the Prince of Promie, who lost his head in the encounter, there has been a series of revolutions in Burmah. After the decapitation of the Prince of Promie:—

"Tharawadi, who had always been addicted to intemperate habits, became so ferocious in his cruelty, that his own ministers found it necessary to deprive him of power and treat him as insane, raising the young prince to the chief authority, with the title of regent. Tharawadi died in confinement a few months after his deposition; but the regent refrained from assuming the royal title until after the death of the old king, which did not occur until the beginning of 1847. His nephew then became sovereign. In the commencement of his reign hopes were entertained that the intercourse with the court of Ava might be renewed on the terms of the treaty, as some disposition was shown to relax the restrictions to which, during the lifetime of Tharawadi, the resort of Europeans to the capital and the trade of Rangoon had been rigorously subjected. The new prince, however, speedily subsided into inactivity and sensual indulgence, and experienced the fate of his father, having been deposed by one of the ministers, who placed himself upon the throne. The particulars of this last revolution are yet imperfectly known in Europe; but the character of the usurper is described as in no way superior to the princes whom he has succeeded in energy or information."

It remains evident, that the arrogance of Ava towards England has not been diminished by these changes. The insolence of the governors of Rangoon and the petty officers on the frontiers of Martaban had been growing in magnitude, until towards the latter end of last year they created serious remonstrance. At Martaban the Burmese were wont to exercise their ingenuity by dacoits and murders committed on British residents; and at Rangoon the governors used their power solely for the purpose of extorting money from their victims. At length the matter was taken seriously in hand by the East India Company, which, in October of last year, despatched Commodore Lambert in the Fox, accompanied by the Tenasserim and Proserpine, to demand satisfaction for various outrages committed against the English residents at Rangoon. The Commodore was instructed to obtain explanations and redress in the shape of 10,000 rupees, and take such measures as might cause the British flag to be respected in future. On arriving at Rangoon, the Commodore found the governor had left the city, and various preparations were being made for warlike purposes. The residents at the same time laid such a catalogue of wrongs before the Commodore as induced him to send to Calcutta for further instructions. The government of Ava at first pretended to accede to the terms offered them, and promised to pay the 10,000 rupees; but the time allowed for decision having expired, a blockade was forthwith enforced, and the king's ship at Rangoon taken down the river in tow as a pledge for payment of the indemnity. It was whilst the steamer *Hermes* towed the king's ship that the Burmas fired the first shot, which was replied to by the Commodore, who cannonaded the place for two hours, and killed three hundred men. Thus commenced the second Burmese war, which is now proceeding, and may possibly terminate with the annexation of the whole of the country, thus placing us in immediate contact with our quondam foe the Emperor of China.

GERMAN PLAYS.

I.—GOETHE'S "EGMONT."

THE appearance of a German company at the St. James's Theatre, under the auspices of Mr. Mitchell, is a noteworthy dramatic movement. They were announced for twelve nights, and commenced their brief season with the tragedy of "Egmont." This work was written by Goethe in 1775. The poet, in its composition—at, indeed, is apparent on the face of it—adhered closely to history; he was, as he told Eckermann, "very sedulous after accuracy. Ten years subsequently," he added, "I read in the newspapers that the revolutionary scenes there described were repeating, *à la lettre*, in the Netherlands. I saw from this that the world remains ever the same, and that my picture must be true to life." And true to life in an historical sense, doubtless "Egmont" is. And this historical life is carefully inserted in the text of the play; the dialogue having an evident perpetual reference to chronicled facts. But these facts are not exhibited in action; they are only talked about by the characters of the piece, and the poem accordingly has more of a narrative character than a dramatic. It is a prose epic divided into conversational scenes. In these, the persons do nothing, except betray their individual idiosyncrasies; but this they manage admirably.

The character and story of Count Egmont are the most purely tragical in modern history. The character is in the highest sense noble and heroic, the story inexorably cruel. It was when the bigoted and terrible Count Alva was sent from Spain to coerce the Netherlands, and reconcile them to the horrors of the Inquisition, that Egmont and his friend Count Horn, influenced by patriotic motives alone, fancied that it was still possible to allay the alarm which the tyrant's approach inspired, by the adoption of measures in consonance with the mild policy of the Regent Margaret of Parma. In vain the Prince of Orange, more prudent than they, urged them to fly the country in company with himself. They remained to attend a summons to a council of state at Alva's house, were there arrested on a charge of treason, and thrown into prison. Meantime the Prince of Orange having collected an army in Germany, advanced into Friesland, and defeated a body of Spaniards at Groenningen. This precipitated the fates of Egmont and Horn;—they were condemned to be beheaded; and the secretary of Egmont was fastened alive to four horses, and torn to pieces. Such are the materials Goethe had to work upon.

In the production of "Egmont," the author had much advice from Schiller, but did not profit by it. It related principally to theatrical effect. Schiller did not pay so much attention to what Goethe calls "motive," in his scenes as the bard of Weimar. Thus, in "Wilhelm Tell," Schiller made *Gessler* abruptly break an apple from the tree, and bid *Tell* shoot it from the boy's head. "This," said Goethe, "was very uncongential to me, and I urged him to give some motive to *Gessler's* conduct, by at least making the boy boast to *Gessler* of his father's dexterity, and say that he could shoot an apple from a tree at a hundred paces' distance. Schiller, at first, could see no need of this; but, in the end, he yielded. I, on the other hand, by too great attention to motives, injured my pieces for the theatre. My 'Eugene,' being nothing but a chain of motives, is not suited to the stage. Schiller's genius was made for the theatre. He constantly grew more and more complete; but a love for the terrible lingered with him from the time of his 'Robbers,' which, in his prime, still tinged his thoughts. In the prison scene of my 'Egmont,' where the sentence is read to him, Schiller wished to have *Alva* in the background, muffled in a cloak, and enjoying the sight of *Egmont's* emotion. Thus *Alva* was to appear a man of boundless malice, and insatiate in vengeance. I protested, and prevented the apparition."

Such an expedient could, in fact, never have been adopted by Goethe, who, throughout "Egmont," avoided the theatrical. The introduction of it in that scene, or any other, would have thrown the whole work out of harmony. However, the passage just cited, sheds a flood of light on both poets' modes of working, and should be studied and restudied by the reader truly desirous of forming a poetic or dramatic taste.

Shakspeare, according to Goethe, "was not a theatre-poet;" and yet he put even him aside, when writing "Goetz" and "Egmont;" and thus he preserved the originality of these works. The treatment of "Egmont" is entirely his own, except so far as the historical circumstances prescribed the æsthetic form. These circumstances are of the simplest kind; nothing more, in fact, than a series of interviews with contemporary persons. First, *Egmont* is seen in the streets with the burghers, who are complaining of the loss of their privileges; next, we have him with his secretary, providing for the due government of his province, and showing in every transaction the humanity of his disposition; after this, *William of Orange* enters, and counsels him to make his escape before the terrible *Duke of Alva* shall arrive to worry the free-thinking Netherlands; advice which *Egmont* rejects, and to get rid of the influence of which, he resolves to visit his mistress, the

humble but devoted and enthusiastic *Clara*. The interview with her accordingly comes next, and a beautiful scene it forms; *Clara* admiring his gorgeous dress and order of the Golden Fleece, and *Egmont* painting the inner and outer portrait of himself for her edification:—

"EGMONT. I understand you, dearest; you may raise your eyes.

[*He kisses her eyes.*]

"CLARA. Let me be silent! Let me embrace thee! Let me look into thine eyes, and find there everything,—hope and comfort, joy and sorrow! [*She embraces and gazes on him.*] Tell me! oh, tell me! It seems so strange,—art thou indeed Egmont! Count Egmont! The great Egmont who makes so much noise in the world, who figures in the newspapers, who is the support and stay of the provinces?

"EGMONT. No, Clara, I am not he.

"CLARA. How?

"EGMONT. Seest thou, Clara? Let me sit down! [*He seats himself; she kneels on a foot-stool before him, rests her arms on his knees, and looks up into his face.*] That Egmont is a morose, cold, unbending Egmont; obliged to be upon his guard, to assume now this appearance and now that; harassed, misapprehended, and perplexed, when the crowd esteem him light-hearted and gay; beloved by a people who do not know their own minds; honoured and extolled by the intractable multitude; surrounded by friends in whom he dare not confide; observed by men who are on the watch to supplant him; toiling and striving, often without an object, generally without a reward. Oh let me conceal how it fares with him,—let me not speak of his feelings! But this Egmont, Clara, is calm, unreserved, happy, beloved, and known by the best of hearts, which is also thoroughly known to him, and which he presses to his own with unbounded confidence and love. [*He embraces her.*] This is thy Egmont.

"CLARA. So let me die! The world has no joy after this!"

To this exquisite scene of tenderness succeeds the powerfully historical one between the *Duke of Alva* and the *Count*. The relations between Spain and the Netherlands are here carefully and clearly and eloquently explained—the policy of the King and of Egmont respectively, and particularly the religious grounds of the contest:—

"EGMONT. Let the King proclaim a general pardon; he will thus tranquillise the public mind, and it will be seen how speedily loyalty and affection will return, when confidence is restored.

"ALVA. How! And suffer those who have insulted the majesty of the King, who have violated the sanctuaries of our religion, to go abroad unchallenged!—living witnesses that enormous crimes may be perpetrated with impunity!

"EGMONT. And ought not a crime of frenzy, of intoxication, be excused, rather than horribly chastised!—especially when there is sure hope, nay, more, where there is positive certainty, that the evil will never again recur? Would not sovereigns thus be more secure? Are not those monarchs most extolled by the world and by posterity who can pardon, pity, despise an offence against their dignity? Are they not on that account likened to God himself, who is far too exalted to be assailed by every idle blasphemy.

"ALVA. And therefore should the King maintain the honour of God and of religion,—we the authority of the King. What the Supreme Power disdains to avert, it is our duty to avenge. Were I to counsel, no guilty person should live to rejoice in his impunity."

The inflexible Duke acts on these principles. There and then he arrests Egmont, our next acquaintance with whom is in prison. Here the fatal sentence of decapitation is read to him; here, too, he is visited and comforted by the Duke's son, *Ferdinand*; here he has a vision of *Clara*, now dead, in the shape of Freedom, offering to him the laurel crown; after which *Egmont* is lifted up with a sudden ecstacy, breaks out into an enthusiastic soliloquy, and is led forth to the block with the martyr-triumph on his brow. Scenes these, equally simple and sublime; each bearing the impression of a master-hand, only not poetic in form, but in spirit intensely so; "wanting the accomplishment of verse," but full of fine creativeness;—of situations inferrible from the historic page, but not previously witnessed on theatrical boards, nor of a kind to be there repeated. And so the whole thing stands for ever in its originality and in its purity.

In adapting "Egmont" for the stage, Schiller, who had undertaken the task, omitted two of the characters. Goethe seems not to have remonstrated at the time, though he did subsequently. The Regent, Margaret of Parma, and her confidant, Machiavelli, were remorselessly sent packing. Eckerman rightly remarked, "this should not have been; for not only does the Regent's presence impart to the entire production a nobler character, but the political relations and state of the Spanish court are brought more clearly to view by her conversations with Machiavelli." Egmont, Goethe himself said, gains in dignity from the lustre which the partiality of this princess casts upon him; as also Clara seems more lovely when we see that Egmont prefers her even to princesses. These are very delicate shades, which



STATUE OF GOETHE.

cannot be obliterated without hurting the whole. The Regent, also, helps to balance the picture, relative to male and female parts. All which important considerations, Goethe was wont to say, he had carefully weighed when he wrote the piece; and it could not but suffer when an important figure was taken out. "But Schiller," he remarked, "had a dash of violence in his nature, and acted often upon his pre-conceived idea, without due consideration of the subject of his action."

It is in this mutilated form that "Egmont" retains possession of the stage—a fact much to be regretted. But even in this shape, its performance in this country will tend to the improvement of our dramatic taste. The performances of the Count and the heroine, by Herr Emil Devrient and Fräulein Stolte are altogether admirable;—each replete with characterisation without stage exaggeration; fine elocution without rant; and every motion accompanied with artistic gracefulness. Let English actors benefit by the presence among us of these fine German tragedians.

STATUE OF GOETHE, AT FRANKFORT.

THIS fine colossal statue of Goethe, which was cast in bronze at the Royal Foundry of Munich, after the model by Schwanthaler, was erected in Frankfort, in October, 1844. The poet is represented clad in a mantle, his right arm resting on a trunk of an old tree, and holding in his left a laurel crown. The pedestal is adorned with bas-reliefs illustrative of passages in his works.

BURMESE SKETCHES.

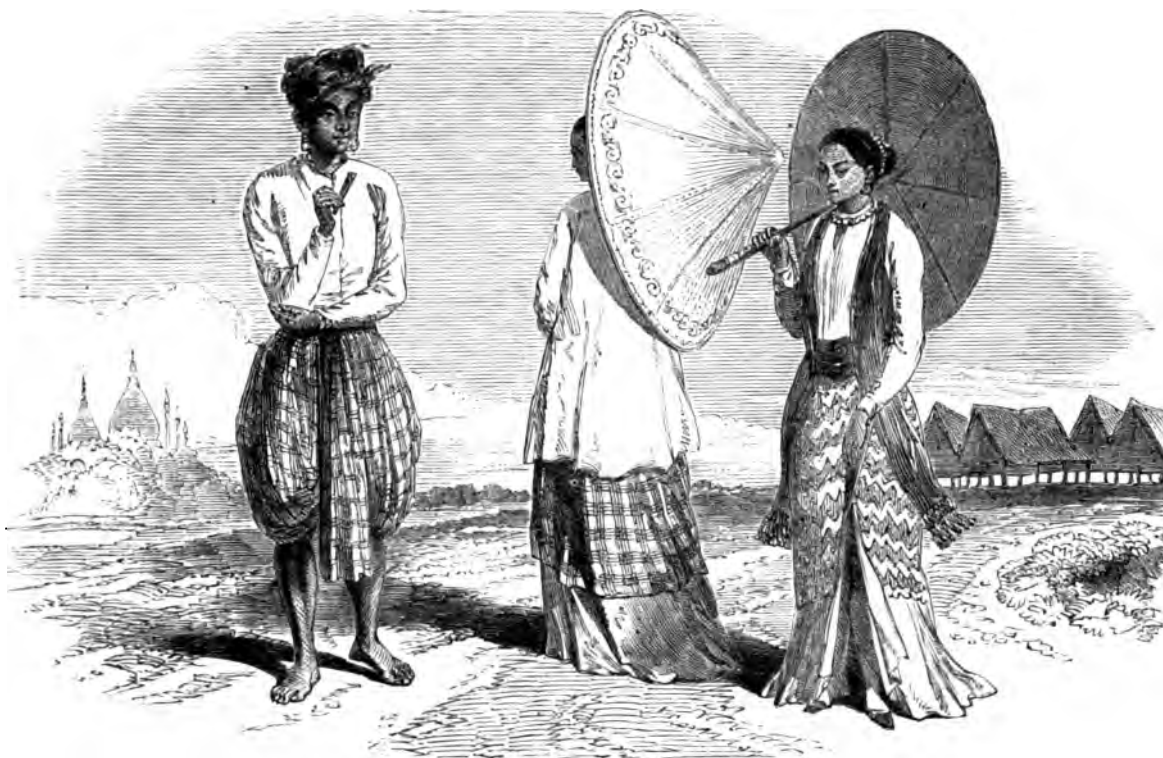
IN connection with our article on the Burmese war, the accompanying local sketches from that country will be viewed with interest.

In Burma, as among other nations which have embraced the religion of Buddha, education is in some degree attended to. It is a kind of religious duty in the priests to instruct youth. The monasteries are the only schools, and the priests, generally, are the only teachers. The Burmans have two languages and two alphabets—the vernacular and the foreign, or Pali. In the Burmese language all the words not derived from the Pali are monosyllables, and even the polysyllabic words derived from this source are pronounced as if each syllable were a distinct word. The Pali alphabet is very little used, even in the religious writings, for which they have recourse to the vernacular alphabet. The literature of the Burmese consists of songs, religious romances, and chronological histories, of which the second class occupies the principal rank. Among the Burmese neither the Christian nor the Mohammedan religion has made any progress.

The costume of the Burmans, though upon the whole becoming, is much less so than the flowing and graceful garments of the western nations of India. The fabrics worn are comparatively coarse and homely. Umbrellas, which are in general use among all classes, are among the principal insignia of rank and office.

The first illustration shows a specimen of the male and female costume of the Talains, with a distant pagoda and dwellings at Mopoon. These people, also called Peguans, at no very distant period formed an independent and powerful nation, but at present they are not very numerous. They call themselves Moan, and occupy, nearly exclusively, the low country between the Delta, the Irrawadi, and the

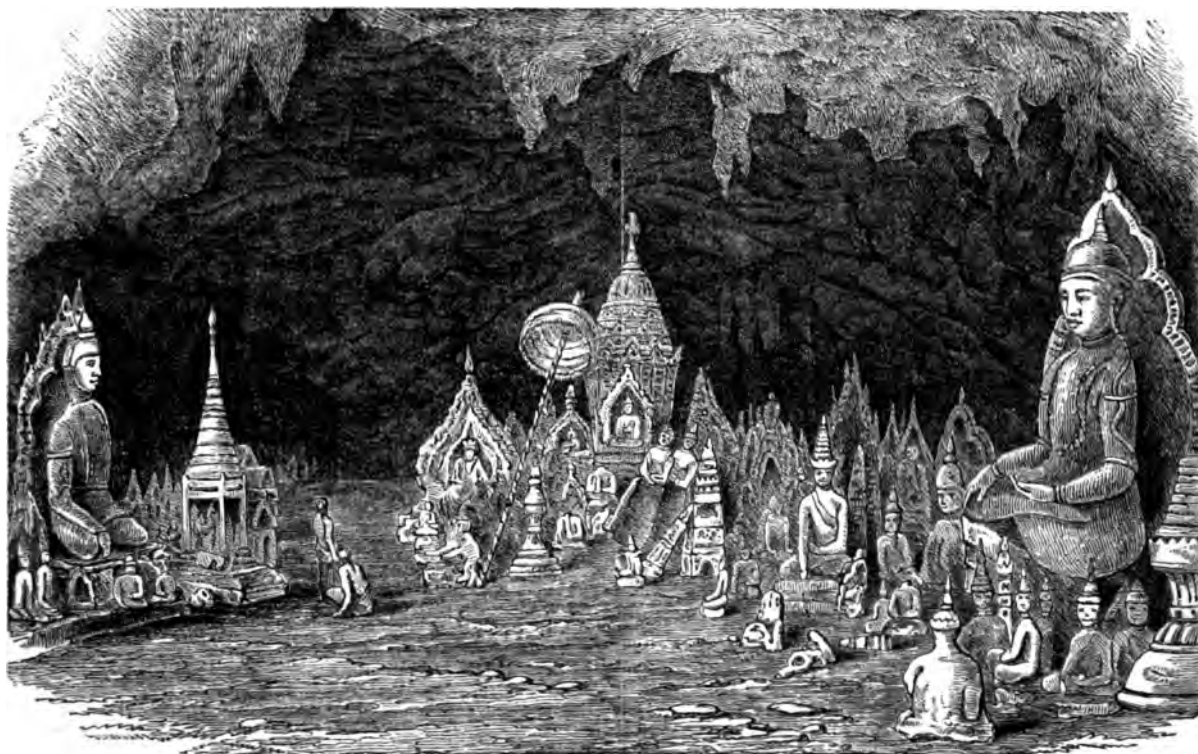
BURMESE SKETCHES.



BURMESE COSTUMES, WITH ROAD AND PAGODA, AT MOPOON.

Salween river. In the Delta itself, they are mingled with Karons, but form the greater part of the population. The other engraving

represents the interior of a large natural cavern, filled by the Burmese with their gods, many of which are sculptured out of the alabaster



NATURAL CAVERN, WITH BURMESE IDOLS.

and marble. They vary in all sorts of hideous shapes and forms; some of them are of enormous magnitude, being from thirty to forty feet in height. From the roof hang the most beautiful stalactites; and what with the dim light, the hideous and grim expression of the

countenances of the deities, and the gloom of the huge cavern, the scene is not one that is not easily effaced from the memory. The cavern extends completely through the rock, so that the visitor can enter at one end and pass out of the other.

GOSSIP ABOUT BUTTERFLIES AND OTHER INSECTS.

WHOEVER wishes to enjoy well a country stroll, either in the early summer or when the fields are yellow and ripe, all ready for the harvest, should know something at least about butterflies and moths; for of the myriads of those tiny winged wonders which flutter and hum and buzz about you in your summer's walk, through field or lane, upon the wild heath, or by the trim parterre, these two families are generally regarded as the most beautiful, and are at least the most admired and pursued by children,—(and, perhaps, even by rustivating adults,)—who are no further interested about the insect tribe than as they please them for the moment with their charming forms and colouring and wayward flights. Yet it is very desirable even for the child to know a little about their story. May he not ask himself, at times, What is this beautiful butterfly? where did it come from? how does it live, and what "does it do for its living?" What return does it make to Nature for this lovely painted and powdered dress, and this gay and idle life of sport and honey-sucking? All this it is natural to ask, and not difficult to answer. With a little attention we may soon learn all that is most interesting about this butterfly. We shall take it to be the large white butterfly, commonly called the cabbage butterfly (shown in the Engraving, fig. 1, c), which is one of the most common species,



Fig. 1.

generally throughout England, in the spring and early summer. It is to be seen in all parts, where there are gardens or fields containing the cabbage plant or any of the numerous vegetables, wild or cultivated, allied to that esculent. This pretty insect flutters in considerable numbers amongst the gardens and even the fields about London and other large towns, and is also frequently to be seen sporting fearlessly not only in the rural-looking enclosures of our squares, but also through the crowded streets, attracted, no doubt, by the mignonette, Virginia stocks, and other floral furniture of the window-sills. The butterflies of the spring are late in their appearance this season, in consequence of the long prevalence of east winds and cold weather, which very much retard the development of these insects. A great variety of species will, therefore, be seen at the same time, and the earlier kinds will continue to a later period of the year than usual; if, as generally happens, we are compensated by a long fine autumn for a cold spring and tardy summer.

Before we say more of the particular species with which we have commenced, we may give a brief explanation of what is meant by the "development of insects,"—as curious and interesting a subject as anything in natural history. Every true insect has three distinct states of existence besides that of the egg, which, though not larger than the head of a small pin, is beautifully marked with geometric patterns,—the eggs of any one species being differently marked from those of every other. In fig. 2, z, we give a greatly magnified drawing of the egg of a well-known British butterfly, called the small tortoiseshell; and at x, in the same engraving, the magnified egg of another butterfly, named *Hipparchia*. Sometimes the eggs are placed singly, at other times in rows or groups, upon the leaves of the plant which is to furnish food to the creature in the next state of its existence. From the egg the caterpillar or maggot is produced, and this is termed in entomology (the science relating to insects) the LARVA of the insect. Of the Lepidoptera, or butterflies and moths, the larva is called a caterpillar; the larva of

other insects are generally called maggots, but sometimes worms. This state of larva, caterpillar, or maggot (fig. 1, b), lasts only until due preparation is made, within the creature, for assuming a very different external appearance, and passing into an entirely new state, wherein the development of the perfect insect is fully carried out. For this change the larva itself provides, variously in various genera. In some, the creature spins itself a silk covering (or cocoon), swathed in which it spends the time of its next condition, in which it is called a PUPA (and sometimes a "nymph"),—the name signifying in Latin a baby, and being given to the insect in this stage on account of its being so swathed like a baby. But in other cases the larva is provided for this transition otherwise,—sometimes assuming gradually a smoothish horny-looking or other covering, in which it is at length completely enveloped; in some species making for itself a case or shell of foreign substances, in which it goes through the pupa state in safety. The pupa (fig. 1, a) of the butterfly or moth is generally distinguished by the name either of chrysalis or of aurelia,—one from the Greek word *chrysalis*, and the other from the Latin *aureum*, either signifying gold. The distinction is given to these pupae because their covering has a bright metallic lustre like gold. The pupa or chrysalis state is mostly one of insensibility; and in due time the development having been completed within, the cocoon or case opens, and the perfect insect emerges, as does a bird from an egg; with this difference, that the newly-hatched bird is not quite perfect; he is unfledged, and requires a long time to acquire his completed form and attain maturity, whilst the insect comes from the pupa full-winged, dressed, and decorated, in all respects mature and of full growth.

The series of changes from larva or caterpillar to pupa or chrysalis, and thence to the perfect insect, is called the metamorphosis, and it is gone through by all true insects;—we say true, because many creatures, such as the spider, though vulgarly called insects, really do not naturally belong to that class. A true insect, in the perfect state, has a distinct head, a body divided into two parts (that next the head, called the thorax, covered generally with a hard coat or corset, and the posterior part, called the abdomen, generally soft), with six legs, which arise two from each segment of the under part of the thorax. Very few genera are entirely wingless, or *apterous*. Burmeister, the great modern German entomologist, will not allow a distinct order or class for these wingless insects at all; because some *aptera*, or wingless, are found in most of the orders, and in some remarkable genera the females are all wingless. But, however they differ in respect to wings, as having four, or two, or none, covered with anterior wing-like cases, called *elytra*, like the beetles, or covered with variegated scales, like the butterfly, they all go through the metamorphosis,—i.e. the larva, the pupa, and the perfect state; though in some, as the pestilent bed-bug, these changes are not so marked in appearance, the creature in one state having very much the same form and external appearance as in another. In such genera they are smaller in the earlier than in the perfect condition; but none, when perfect, having quitted the pupa state, ever grow. The English entomologists, Kirby and Spence, call that a perfect metamorphosis where the creature in the early, resembles its perfect, state. But Burmeister insists that such should be called the imperfect, because there is the least appearance (sometimes scarcely any) of metamorphosis at all; and the other should be called perfect in which all the changes of condition are so obvious and striking. In all cases, however, the same gradual development takes place, though the transitions are far less observable in one than in the other.

Insects are distributed into orders, according to the characters of their wings, though scarcely two entomologists are agreed in their classification or their names. Indeed in several orders there is no room for difference, as the characters of the wings are sufficiently marked for unmistakable distinction. Such are the butterflies and moths, which constitute the order *Lepidoptera*, or Scale-winged, from the Greek words *lepidos*, scales, and *ptera*, wings. They are so called on account of their wings being covered with minute scales, to which they owe their beautiful colouring, and which have the appearance to the naked eye of dust. The order is then divided into three classes, founded on their habits of flight. The butterflies are called *diurnal*, that is daily, because they are on the wing in the day time, which is not the habit of the moths. It is not meant that moths do not fly about in the day, but simply that it is not their habit—one division of their class preferring the time of twilight for their flight, and therefore called *crepuscular*, from the Latin *crepusculum* (twilight); the other division of the moths prefer to fly at night, and they are called *nocturnal*. These three divisions differ also in the structure of their antennae, or horns. In the diurnal *Lepidoptera*, i.e. the butterflies, the antennae are clubbed at the end, as in fig. 2, a. In the crepuscular *Lepidoptera*, as the hawk-moth, they are gradually thickened to the end, as in fig. 2, b. In the nocturnal *Lepidoptera*, or moths, the antennae are either pointed, as at c. fig. 1, or pectinated, that is comb-like, from the Latin *pecten*, a comb. The two last-mentioned classes of *Lepidoptera*, the moths, crepuscular and nocturnal, are by far the most numerous; in this country they number nearly two thousand species, whereas we have only about seventy-five species of butterflies.

The powdery dust-looking scales, which give all the beautiful pencilling to the wings of the butterflies and moths, and, as we have said, give to this order the name of *Lepidoptera*, or scaly-winged, are found, when magnified, to be of various forms, and yet so minute are they that 100,700 have been counted upon a square inch. Some of the most common forms are shown at r and c in fig. 2; those forming the fringe at the edge of the wings, when magnified, being generally in shape

somewhat like *h* fig. 2. These scales are attached to the wings by a small pedicle, and are most commonly disposed in transverse rows, overlapping each other like the tiles of a roof. When they are removed, the foundation of the wing is discovered to be a transparent and elastic membrane, slightly indented with fine lines forming grooves for the

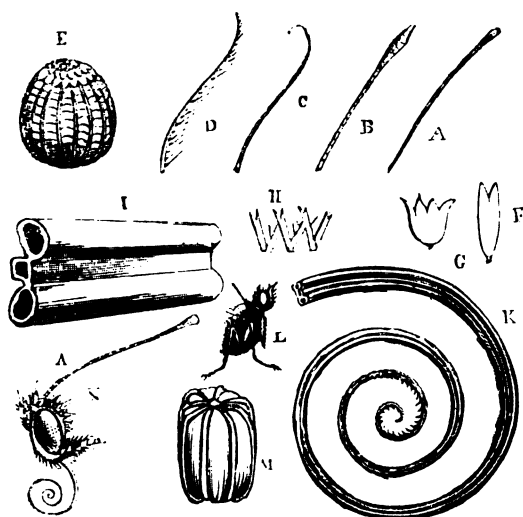


Fig. 2.

insertion of the scales. The thin and delicate tissue of the wing is strengthened by tubular nervures radiating from the base. These nervures are commonly termed veins. The proboscis, or trunk, with which the butterfly extracts food from the nectaries of flowers is a most exquisitely constructed piece of mechanism, and when viewed through a powerful microscope, appears composed of a treble tube, as shown in the large section (fig. 2, *i*), the two larger passages being connected, it is supposed, with the breathing apparatus, while the small central channel alone serves for the passage of the alimentary fluids. At *k*, in fig. 2, is a less powerfully magnified view of the whole trunk, which owes its extreme flexibility to its being composed of numerous rings or transverse fibres. At *n*, in fig. 2, is a still less magnified outline of the entire head, showing the structure of the horns, or antennae (*a*), and the palpi, or projecting points, which are attached to a small triangular plate, which is generally regarded as the under lip, as it closes the cavity of the mouth immediately below the insertion of the trunk. The eye is composed of no fewer than 17,325 lenses, each of them possessing the properties of a perfect eye; so that, according to M. Puget, some butterflies may be said to possess no fewer than 34,650 eyes. In fig. 2, at *l*, is a magnified drawing of the first segment of the thorax in those species in which the first pair of legs is only rudimentary.

The one with which we have commenced, on account of its being so common, is called *Pieris brassicae*. And here we may observe, that many of the genera and family names in entomology are arbitrary, or fantastic, and admit of no explanation, or else of one which would only puzzle the reader. For this reason we leave the family name, *Pieris*, as it is, and only translate *Brassica*, which means "of the cabbage." The *Pieris* of the cabbage is so called because it is upon that plant, or some allied one, the female deposits her egg, from which the caterpillar is in a short time hatched, when it feeds upon the plant during that stage of its existence. This *Pieris brassicae* comes forth from the chrysalis early in a fine April, or more generally in the latter part of that month, or in the course of May. This year many, in some situations, are later. In the state of chrysalis it had remained during all the winter months and the cold of spring, attached to a plant, as in our illustration (fig. 1, *a*), or, as the convenience of the previous caterpillar state, suggested, perhaps against a wall. Very shortly after the female of this cabbage butterfly (or common white), takes wing, she flutters about in quest of one of the favourite vegetables, which is sure to be at hand, as it was on one of these she passed through the first part of her previous condition. Upon this she deposits her eggs; and here the caterpillars come from the eggs, generally some time in June.

The full-grown caterpillar (for the larvæ grow, though the perfect insect does not,) is of a light-green colour, striped with yellow, and thickly marked with irregular black spots (fig. 1, *b*). Like most caterpillars (with the exception of those of the *Geometra*, a species of moth,) it is provided with sixteen legs, the body being generally divided into twelve segments, to the three first of which six legs are attached, one on each side of each segment. These are called the pectoral legs; they are pointed at the extremities, and with these, it appears, the part of the leaf about to serve as food are held, in a manner somewhat analogous to occasional functions of the fore feet of some quadrupeds. The two next segments have no legs; but the four following these have two legs each, which differ from the pectoral in being thickened, and flattened at the extremities, to give them greater tenacity so as to hold on tightly to the leaf, leaving the fore part of the body free to raise itself and turn about in every direction. Behind these eight holding-legs (as some have called them) are two segments without legs, and then

follows a final segment with two additional holding-legs. When the caterpillar is arrived at maturity, it spins a little knot of silk, to which it attaches its two posterior legs (those on the final segment); it then forms a silken girth, consisting of forty or fifty threads, round the centre of its body, by which it secures itself to the twig or wall upon which it is to pass the state of chrysalis. In about thirty hours this transition is completed. The skin gradually changes to a dusky colour, owing to the separation of the chrysalis forming beneath it. At length, the old skin of the caterpillar splits at the back, and the chrysalis disengages itself from it altogether, except that sometimes a portion of the old skin remains, near the tail end, as shown upon the chrysalis, fig. 1, *a*. The chrysalis state lasts about sixteen days, the perfect butterfly appearing in July. These in their turn deposit their eggs; and so the cycle goes round.

The male butterfly of this species has the tips of the fore wings beautifully marked with black, powdered with an ashy colour towards the edge; on the under side, the hind wings are of a light buff colour, minutely powdered with black specks, the upper edge of these wings being edged with a fine orange streak. The fore wings are, on the under side, tipped with buff, and are shaded with the same colour down the front edge.

The females of many species of butterflies are differently marked from the males, that of the species under description being distinguished by two conspicuous black dots (fig. 1, *c*), and in fine specimens there is a third black mark; these spots being wholly absent in the males.

There are two very distinct smaller species of white butterfly; viz. *Pieris rapæ*, known as the small garden white, and *Pieris napi*, the green-veined white,—specifically named *Rapæ* and *Napi*, from the plants upon which the caterpillars feed. *Pieris rapæ*, the *Pieris* of the rape plant, by persons ignorant of the nature of insects, has been sometimes considered the young of *Pieris brassicae* (the large white); but it is well



Fig. 3.

known that insects having once attained their winged or perfect state, never grow at all. In addition to this well-known fact, the appearance of this insect in the caterpillar state (fig. 3, *f*) is sufficiently different to proclaim it at once a distinct species. The caterpillar is smaller, and more compactly formed, and instead of being marked with conspicuous and irregular black spottings, it is of a soft and velvety green, marked only by a yellow stripe above the legs, and another down the centre of the back. It is true that the soft velvety green is delicately powdered with very small black specks, but these are too minute to be noticed without close examination. The chrysalis of this species is shown at *a*, in fig. 3. In the perfect state, the males of this species are further distinguished by having one black spot in the centre of the fore wings (fig. 3, *d*), and two faintly marked on the under side (fig. 3, *e*); the females being distinguished, as in the larger species, by two black spots on the upper side.

The other distinct species we shall describe is *Pieris napi*, the *Pieris* of the turnip (the green-veined white butterfly), the caterpillar of which has only one yellow streak, that immediately above the legs (fig. 3, *i*). In other respects it is very similar to the caterpillar of the small garden white butterfly (fig. 3, *f*); the most remarkable distinction of the species being found in the colouring of the hind wings of the perfect insect, which are beautifully marked underneath with vivid green on each side of all the veins or nervures (fig. 3, *h*).

(To be continued.)

THE NORTH AND WEST OF IRELAND.*

THE Irish tourist needs not, because he has seen Killarney and its adjuncts, fancy that all the treasures of Irish scenery are there concentrated. It is true Killarney is the loveliest of all the Irish lakes; but the Shannon will be found to rival the Rhine in breadth and majesty, if not in the antiquity of its castles; the Tipperary mountains are remarkable for height and abruptness of form; and none who have not viewed can imagine the magnificence of the Giant's Causeway and its attendant wonders.

From Killarney you get to the Shannon with ease. You may reach Tarbert through Tralee and Listowel, and visit on your way the far-famed caves of Ballybunion. In Tralee you may chance to witness an Irish fight, if you happen to be there on market-day. You scarce can leave it without viewing the beautiful ruins of Ardfert Abbey. The road through Listowel to Tarbert is "full of the wildness" of bog-heath and solitude. As you approach the latter the most splendid view of the Shannon meets the eye.

"Rightly, indeed, is the Shannon the glory of Limerick. It takes its rise in the mountains of Leitrim, and running for a few miles as an

inconsiderable stream, diffuses itself into a spacious lake, called Lough Allen. Issuing thence, it purues its course for several miles, and forms another small lake—Lough Eike; again spreads itself out into Lough Ree—a vast lake, fifteen miles in length, and four in breadth. Thence it proceeds as a broad and rapid river, passing Athlone. Then, narrowing again, it reaches Shannon Harbour. Then it again widens into far-famed Lough Derg, the largest of the Shannon lakes—eighteen miles long and four broad (and most famous for its pilgrimages to Croaghpatrick). It progresses thence, to Killaloe, where it ceases to be navigable, until it waters the City of Limerick. From this point it flows, in a majestic volume, to the ocean; flowing, altogether, a distance of upwards of 200 miles, from its source to its mouth, its mouth—between Loup Head and Kerry Head—being eight miles broad; watering ten counties in its progress; and affording facilities, were they properly developed, and assuming that markets are at hand, for commerce and internal intercourse such as are unparalleled in any other part of the United Kingdom." Limerick is a fine city, has its garrison, and not a few noble reminiscences.

Wicklow is so sweet and beautiful a county, that to omit to visit it would be sin indeed unpardonable at this time. Although Wicklow



ATHLONE, FROM A SKETCH BY S. LOVER.

still remains unconnected by rail with the capital, and may yet claim for some time the privilege of old stage coaches—for which the rising generation have not by the way the veneration of older "stagers"—the time is not now far distant when the line of rails will advance beyond that great natural "engineering difficulty"—the head of Bray. Yet were this speedier mode of communication at this moment in full vigour, Wicklow must still retain the name which it has so well obtained, of being the garden of Ireland. The beauties of this little county are peculiarly its own. Their scale is small, but they are not the less splendid from being in miniature. There is a grandeur in the rocky chaos of the "scalp;" gloom upon Lough Bray; charms of picturesque extent about Loch Dan. The Seven Churches have a world-wide renown, and the vale of Avoca and "meeting of the waters" are a never-failing theme for admiration and national pride to discourse upon.

If from Wicklow we turn westward, we have no ground for disappointment. Taking the Midland and North-Western railway, it brings you in uninterrupted course to Galway, a port of which so much has been said, and more we hope will be done, with reference to transatlantic communication. The locomotive which drives you onward passes through Westmeath, stops at Mullingar, whose lakes abound in most delicious trout. Athlone comes next, but before we reach it, we pass a place well worthy of brief notice, and that is—

"Auburn, 'the Deserted Village,' in the immediate vicinity of which are the ruins of the birth-place of him who enshrined in undying song this 'loveliest village of the plain.' Soon after leaving these scenes of Goldsmith's childhood, we reach Athlone by means of a magnificent iron bridge (from the design of Hemans) over the Shannon. The view which is here obtained of the river and the lower portion of Lough Ree is of a nature to excite the admiration of the lover of the picturesque. Athlone itself possesses strong claims in that respect.

"Among the many objects of interest in the town, the most conspicuous is the Castle, built by the early English settlers to overawe the 'wild Irish' of the borders. As an additional defence, walls were

constructed around it; but scarcely a vestige now remains. Though that memorial of past ages be swept away, the antiquarian will not fail to observe the house which served as the residence of one of William's best commanders in the wars of the revolution, General De Ginkle, during the siege in 1689. The military position of Athlone has been ever conserved by all succeeding governments; and, at the present moment, it is a first-rate depot for all grades of soldiery, and in the armoury are deposited 15,000 stand of arms. We rejoice that the pencil of Lover presents us with a very charming sketch, expressly and obligingly taken for us, of the *locale* his pen had already helped to hallow, in some of his recent and happiest fictions."

Galway is a curious old place. In ancient times—

"It looked out upon the Atlantic, and from its harbour ships could sail right on for Spain. The Irish chiefs loved wine, and Spain supplied it. Ireland cured pork and butter, the best adapted for warm climates and the West Indies; and Spain took it in exchange for her cherries. A profitable trade was the consequence. Strength first offered security to merchants, and the consequent wealth augmented the capacity to protect. High walls and strong gates forbade the approach of the 'cruel O'Flahertys,' whom the legends on their portals denounced; and the citizens who delighted to record on their tombs the fact of their being 'real Englishmen,' made a history and a prosperity for themselves. The prudent citizens often found it more convenient to buy the enemy off, than fight them. Athenry, the English capital of the province, more bold, was less fortunate; and its remarkable ruins, 14 miles distant, tell the story of its greatness and its fall, while Galway still flourishes, a pleasant town, and a hopeful mart of trade. The impress of Spain is still upon the place, for the houses and the customs are Spanish. It was night when we arrived (says the chronicler of the party, of which Lover and Liebig were two), and strolling out with a foreign gentleman and a Liverpool friend, from Kilroy's Hotel, we were surprised to find the principal street full of pleasure-seeking people at eleven o'clock! It is the same here as at Seville; the 'hall' was crowded with all classes, operatives and ladies, gentlemen, 'half-sirs,' and 'spalpeens.' They were right merry and audibly happy. Anciently, Galway was more prosperous than at present. The

* "A Trip to the South of Ireland" appeared in No. 5.

buildings show this. The houses of the Lynches and the Blakes in testimony to a prudent pursuit of wealth, the dwelling, store, counting-house being in juxtaposition. Elaborate carving demonstrates taste and pride; and the marble of the vicinity enabled the architect to impart strength, durability, and grandeur to the merchant's home. The obtrusion of the end on the street is peculiarly Irish; but it must be confessed the modern houses, with plate-windows, indicate an improvement in taste and comfort. In brief, there is no town in Ireland with so good a promise about it, and certainly not one with as great capacity for advancement. It is the capital of the county; and although Connaught is poor, still a capital is something. Then there is a prodigious power in the town; Lough Corrib can turn some hundred under wheels, and suitable manufactures will soon, we trust, call these into operation. Labour is cheap, and people have infinite intelligence, and are highly interrogated.

At present the people of Galway participate much from their harbour: indeed, a fine one; the royal commissioners libelled it, for it can accommodate the 'New World' or Great Britain. These, and others, will enter Galway Bay; there is trade for them, and will not long be coming, according to all present appearances. A railway station established, manufactures would assuredly suggest themselves, if they did not lead the way." From Galway, through Connemara, the tourist will find plenty to rest and amuse him, in the wildness of the mountain scenery and the breadth of some of its prospects.

The Giant's Causeway is the great attraction of a northern tour. From Dublin to the coast the journey is formed by rail, the risk occurring at the passage of the Boyne, which, however, be up before a week's elapse. From Dunmurry, Dunmurry, and Newry, no great interest. Rosstrevor, is within a mile of the town, should be visited. The "Mont-r" of Ireland, is called, has the attractions of a health resort, health, prettiness of scenery. Around the landscape is led in like a beautiful picture, the variations of the scenery ten and reach each other. The rugged and steep tops of the mountains are fine-contrasted with rich meadows that skirt the sides and — the dark with the blue — and the ruins of days with the architecture of modern times. There is no trade and no here. Many of the houses on the seaward side turn their backs to the street, and front the delicious sea-breeze. It has, altogether, a stately and exclusive appearance; still it is a spot of surpassing interest. Near the centre of the town, between the main street and the shore, stood formerly the massive castle of Rory M'Gennis, an ancestor of one of the Lords of Iveagh, who formerly owned this

region, and to whom Rosstrevor owes its origin. A stranger would now search in vain for the ruins of this ancient castle, for scarcely a vestige has been suffered to remain; you could hardly trace the spot where stood, within the memory of the present generation, the ruined walls that once re-echoed to the wassailry of the bold M'Gennis and his clan. Yet it has not passed away without a lament from the harp of one so worthy to sing its dirge—the 'Wizard of the North':—

Ab, Clondeboy! thy friendly floor
Sliev Donard's oak shall light no more;
Nor Owen's harp, beside the blaze,
Tell maiden's love, or hero's praise!
The mantling brambles hide thy hearth,
Centre of hospitable mirth!
All undistinguished in the glade
Thy sire's glad home is prostrate laid;
Their vassals wander wide and far,
Serve foreign lords in distant war,
And now the strangers' sons enjoy
The lovely woods of Clondeboy!

"Rosstrevor, while completely screened from the cold north and east winds—so deadly to the consumptive—by its mountainous amphitheatre, enjoys the mild and salubrious southern breeze."

Belfast is, as every one knows, the most thriving city in Ireland. Its great industrial feature is its linen manufacture, and much good is now expected to accrue from the increased cultivation of flax, which, by new processes, is likely to become as easy of use as cotton for weaving tissues.

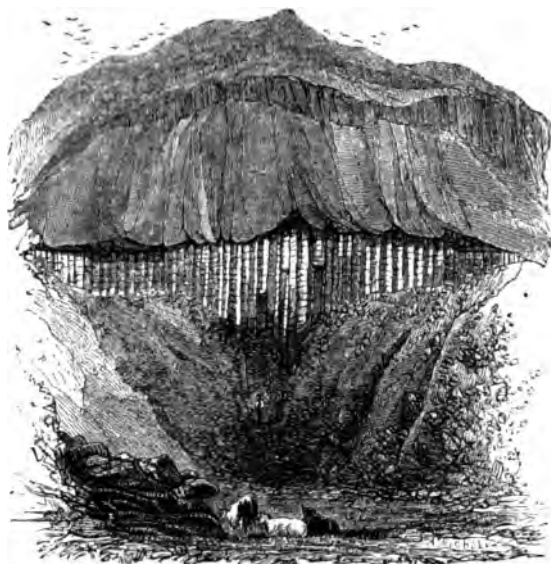
There are two roads from Belfast to the Giant's Causeway—the inland by which to go, the coast road by which to return. Proceeding first to Carrickfergus, the travellers soon enter into the midst of splendid landscapes. The sea on one side is bounded by the mountains of Down, and on the other by a villa after villa peep out from thick plantations.

The mountain from thence through Larne, is the best to take, and after that the towns of Glenarum, Cushendall, and Ballycastle, are passed.

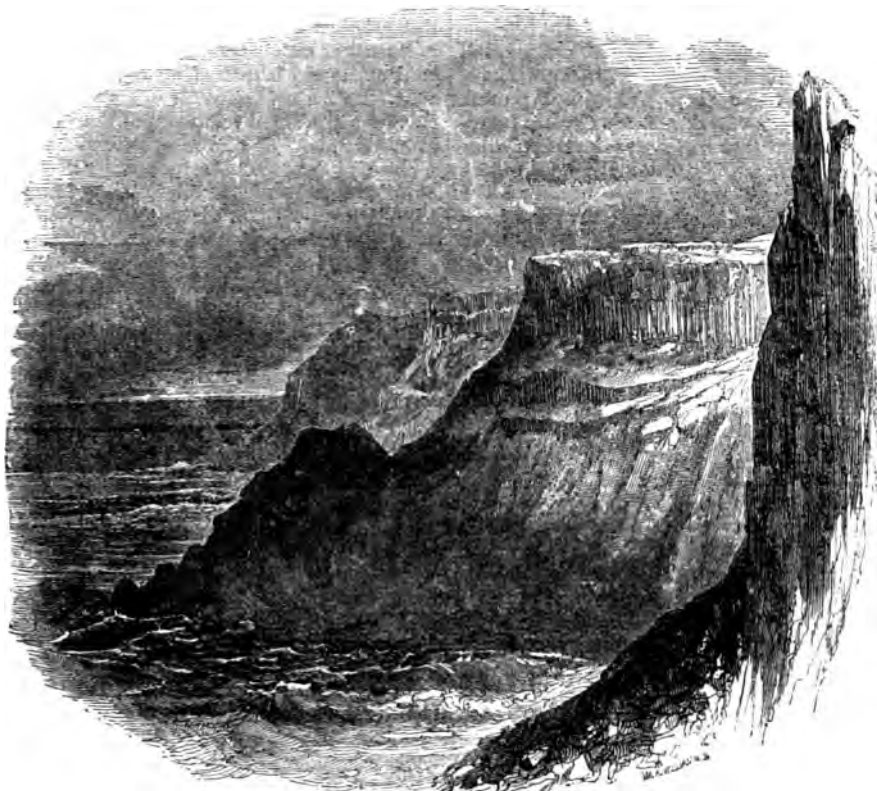
"From Ballycastle, proceeding to the Causeway, the first object of interest is the island of Rathery, the scenery of some portions of which is exceedingly grand. Caves are numerous in the island, especially on the northern shore, one of which sheltered Robert Bruce in 1306. Carrick-a-Rode is remarkable for the suspension bridge of ropes, and a plank of but a few inches wide, put up during the season of salmon-fishing. Those who are accustomed to cross it do so without fear, although to a stranger the depth (ninety feet) causes giddiness and dread. Proceeding onwards, the by-road verges into the main one near Ballintyre,

after leaving which, we come upon Dunseverick Castle, on a lofty rock, and built about the eleventh century. Bushmills is only one mile from the Causeway."

The first part of the coast where "the peculiar columnar basaltic formation of the Causeway scenery begins to strike you, is just beyond the town of Larne, where, on Island Magee (not often visited except by the more enthusiastic class of tourists), you encounter the Gobbins.



GIANT'S ORGAN.



THE PLEASANT, GIANT'S CAUSEWAY.

"Attractions now multiply so fast, that the mere enumeration of the leading ones would make a formidable inroad on our pages, merely if presented in a tabular or catalogue form. After visiting the Pleas-kin, which is generally considered as really the Causeway proper, and of which our illustration conveys as good a notion as probably can be derived from anything short of actual inspection, an excursion always eagerly pressed upon the traveller, and one, perhaps, longest remembered by him, is a visit to Port Coon Cave.

"One of the most admired and characteristic objects on the whole of the Causeway Coast is, however, the 'Giant's Organ.'

"Of the spot represented in this engraving, it has been as truly as beautifully said: 'It is impossible for painter to portray, or imagination to conceive, a walk of more sublime beauty than that along the headlands from the Causeway to the Pleas-kin. See the Pleas-kin from the water if you can, but do not fail to see it by land. Seat yourself in Hamilton's boat, and look down upon the galleries, the colonnades, the black irregular rocks, the stratum of many columns, and the debris of a sloping bank that meets the waves, and is clothed here and there with verdure of all hues and qualities. May you see it, as we did, when cloud and sunshine are chasing each other; when the gulls and sea-birds look like motes floating from the ocean to their haunts in the wild cliff—when we looked down an abyss of the most surprising beauty, not at the time remembering that from where we sat to where the ripple kissed the strand, was a depth of three hundred and fifty-four feet.'

"A lesser phenomenon, but scarcely less praised, is one standing some distance from the cliff, consisting of three pillars, the tallest being forty-five feet high, and called the 'Chimney Tops.'

"These Chimney Tops, according to Mr. Hall, were said to have been battered by one of the ships of the Spanish Armada, whose crew in the night time mistook them for the chimneys of Dunluce Castle. The ship, according to tradition, was lost in the small bay on the other side, called from the circumstance, Port-na-Spania. Looking from this point, seaward, we perceive only a rock, which seems to be a continuation of the structure. Beyond it, to the east, is Sea-gull Island, a broad and high rock, generally almost covered by the birds which have given to it a name."

PUBLIC OPINION AND THE PRESS.

NO. II.—THE NEWSPAPER PRESS, ITS USEFULNESS AND POWER.

IN treating the subject of "Public Opinion and the Press," we shall chiefly address ourselves to the "Press," as applied to the duties of journalism, making casual reference to periodical publications in general. The "newspaper," as it is the youngest offspring of the glorious invention of moveable types, is also the most powerful and the most important as regards all the great concerns of life. The rapidity with which its daily, —nay, hourly, missives succeed one another,—the facile multiplication of its creations by the application of steam; the promptness and regularity with which the teeming thoughts embodied in its columns are conveyed at all hours of the day through innumerable channels into every part of the known world;—these are the elements of power which make the Newspaper Press, particularly that of England, the admiration of the world,—the pride of the enterprising and strong-hearted,—the terror of the weak and misdoing,—the guiding-line of conduct in all transactions of business,—in a word, the circulating life's blood of public opinion, and the reflex and picture of a whole world's thought, and purpose, and action.

And how universal is the influence of this new power; how potent—how fascinating, the spell which it holds over the minds of its subjects, who comprehend the whole educated world. Yet, it cannot be denied that "the Press" has made its way rather in spite of, than favoured by, individual opinion; that at its first outset it alarmed prejudice in many high and hidden quarters, clashed with many a point of prescriptive dignity, wrestled with many an established wrong and time-honoured abuse; and occasioned much chafing, irritation, and ill-will in the minds of the classes who had hitherto always had their own way, and never knew it disputed. Authority was astounded at the insolent pretensions of an inquisitor, which, claiming right by no legal charter or prescription, was to all intents and purposes an usurper. Authority denounced, ridiculed, persecuted the intruder,—but in vain. The new inquisitor with his shrouded face and his countless hosts of assistant clerks and myrmidons, still went on inditing his decrees with pen of iron, and fulminating them forth upon the world, until authority began to quail,—was fain most unwillingly to acknowledge the intruder's power, and even condescended to propitiate his good offices.

Yes! let them dispute it who can; we assert the broad fact, that the press, having by terror or affection, by hard blows or tender offices, won its way to its present high and powerful position, there is not an individual or class in society, from the monarch on the throne to the meanest of her subjects, who does not feel and admit

its authority, as essentially affecting his interests, his projects, or his predilections.

From the most momentous questions of state policy, down to the most trivial matter of village gossip,—what is there too great, what too small, for the press to deal with; what is there which does not derive vitality and importance and receive its colour from its treatment by the press? The speech delivered in the senate over-night would have been spoken more than half in vain, if the "usual organs of public intelligence," as newspapers are styled in "parliamentary language," did not publish it to their tens of thousands of readers in the morning. The triumph of the new *prima donna* or "pet of the ballet," which throws the *élite* of fashion into ecstasies, is incomplete until proclaimed, mid much flourish of typography, to each astonished breakfast-table of the West-end. The basket-full of *bouquets* which showered about her feet, have no odour, till they are registered and authenticated by the polite "critics" of the *Times* and *Post*. The grand diplomatic *soirée* in Carlton Gardens, though enacted on Saturday evening, exists to all essential intents and purposes but in the columns of the morning papers of Monday. The "fashionable arrangements" of each fashionable establishment from Belgrave Square to that of Berkeley, go for nothing till they are announced to the world at large by the fashionable organs of Shoe Lane and Wellington Street, Strand. The "marriage in high life," at which the hero of a hundred fights gave away the bride, is still an incomplete affair, until the *Morning Post* duly describes the materials of the *trousseau*, the style and quality of the "distinguished guests" invited to the "wedding collation," and the chariot and four (greys, of course), which conveyed the happy pair to the charming family retreat where they are doomed to spend "the honeymoon,"—and how oft, ere yet that age of sweets is passed away, may not that very *couleur de rose* narrative of the amiable *Post*, serve to beguile the ennui of the new-made wife; perchance suggesting a touching moral upon the vanity of human hopes, and a not very agreeable contrast between the present, and many a faded day-dream of perfect felicity!

But we should go on for ever, if we attempted to give illustrations of the tenth or the one hundredth portion of the various states and conditions of men and of mundane affairs in which the voice of the press is the voice of law,—the truth of life. The poet writes in hopes of gaining that pabulum of poets' ambition—public applause;—and if he obtain it, it must be mainly through the agency of the "Press," without whose good offices the labours of himself and his printer would be thrown away. To the artist-exhibitor in Trafalgar Square or Pall Mall, one line of "the polite" in the columns of the "Press" is worth the "ah, ah," and "very fines" of a score of empty cognoscenti. In short, to the speculative creator of novelty in every department, from the projector of a "new company," to the inventor of a new shirt collar, or a new tooth-pick, "a puff" in the morning papers is the breath of his nostrils,—the gale which first fills his sails in the voyage of fortune.

In matters of opinion, too, and especially in all those where individual character is concerned, how tremendous, yet how wholesome, is the power of the press; and how anxiously is it resorted to as a court of *dernier ressort*, in appeal against the fantastic tricks of the bully, the puppy, or the dunce "dressed in a little brief authority." An "affair of honour" takes place, or is threatened, between two gentlemen, most well-dressed members of a West-end club. Instead of proceeding to blows or bullets, they take up the cudgels in the shape of a pair of "magnum bonum" pens, and having exhausted all their wit and all their animosity upon paper, forthwith hand over the precious "correspondence" to the *Times*, or *Chronicle*, or *Post*, and patiently abide the result of a twenty-four hours' scrutiny by all the quid-nuncs of the world of clubs. And all honour to the calm dignity and potent sway of "the Press," for its share in the abolition of that most monstrous and most stupid law of the pistol. What the legislature and the justice seat had for ages denounced and prosecuted in vain, "the Press" has succeeded in suppressing by the mere use of its still small voice, and its hard-telling satire. Yet in this very case of duelling, we have but one illustration of the inability of the law to cure a great social evil until seconded by "Public Opinion," awakened and expressed through the press. There are many other cases of the like kind which occur every day, and the variety and value of which are equally inappreciable. The young aristocratic brawler, (a genus, we are happy to say, becoming more and more rare every day,) who is fined five pounds for assaulting an "unprotected female," or any other disorderly act, pays the penalty with alacrity, and thinks nothing of it, provided he can "keep it out of the papers." The swindling scamp, who manages for the tenth time to make his escape out of gaol through the Insolvent Court, is happy in the contemplation of his newly-obtained liberty, and the fresh field for victimising which opens before him, if he can but "keep the case out of the papers." Full many a dirty claim or shabby resistance of a just claim by the man of wealth and station against some poor helpless

dependant, which would otherwise infallibly have been prosecuted à l'outrance, is abandoned when it is threatened absolutely to try it in court, not because the wealthy delinquent has any dread of being cast in costs; but because his friends tell him, very confidentially, of course, that "it would not do to have his name mixed up with such an affair in the papers!"

Nay, more! If the law has been powerless in some cases to suppress a great evil until supported by the press, and if, in many cases which occur every day, the decrees of the administrators of justice bring no penalty to be compared in magnitude with that which is pronounced by public opinion through its organ—the press; have not even the magistrates of the land themselves quailed before that very court of appeal? have there not been occasions where they have had to kiss the dust before it, and where the revision of their decisions by "the Press," influencing a prudent executive, has led to their removal from office? Delicacy prevents our suggesting more upon this point,—above all, prevents the mention of names; but circumstances of the nature to which we refer must be well-known to many of our readers.

One of the most remarkable instances of the absolute power of the press against wrong occurred recently in the suppression of that time-honoured sink of iniquity—the Palace Court, the monstrous machinery of which, after having been permitted to work "on the quiet" for centuries, (being one of the oldest courts in the land,) was suddenly shattered and levelled to the ground by the well-directed artillery of a *Jacob Omnium* in the *Times*.

THE WORKSHOPS OF ENGLAND.

No. II.—STOCKING WEAVING.

BEFORE describing the stocking frame, we will say a few words of the difference between knitting, which is accomplished by its means, and weaving. In weaving there are two threads, the *woof* and the *warp*; the *woof* being thrown, or made to pass through the numerous threads of the *warp*, and being retained by them. In knitting there is only one thread, which is entwined in a succession of loops in so ingenious a manner that it produces a tissue of equal substance with that of cloth; though, from the nature of the process, much more yielding and elastic. Analogous to this process of knitting, is that favourite occupation of the ladies of the present day, called *crochet*,—the chief difference being, that the looping, or intertwining, in knitting is performed by means of two metal wires, or needles, which have straight points; whereas, in *crochet* it is done with one, having a hook or curve at the end. This reference to *crochet* will prepare the reader for the principle involved in the machinery of the stocking-frame; here it will be seen that the threads, or rather loops of the one continuous thread, are drawn through the previously made loops by means of a set of hooked wires;—the main difference between the *crochet* needle worked by hand, guided in each movement by the intelligence of the operator, and the needles on the stocking-frame is, that whilst in the former the point of the hook is guided out of the way of the threads which it is not required to lay hold of, in the stocking-frame it is depressed within a groove, so as to be inoperative and harmless.

Stockings are a comparatively recent invention. The Romans wore none, neither were they particular in providing anything to answer the same purpose. The northern nations first introduced hose or trousers, which covered the legs down to the foot; and it is not until recently that of this one article of dress people began to make two—the upper part retaining the old name, and the lower that of *half-hose*, or, in German, *strumpf*, or *halb-hosen*. The first stockings therefore were of cloth, and made by tailors, and of course were neither so comfortable, nor so close fitting as those since made by knitting or weaving.

Beckmann, in his "History of Inventions," gives some curious particulars upon this subject, of which we take advantage, somewhat abridged, in what follows:—

"It is more than probable that the art of knitting stockings was first found out in the sixteenth century, but the time of the invention is doubtful; it is also uncertain to what people we are indebted for it, and the name of the inventor is entirely unknown. Savary appears to be the first person who hazarded the conjecture, that this art is a Scottish invention, because the French stocking-knitters, when they became so numerous as to form a guild, made choice of St. Fiacre, a native of Scotland, to be their patron; and besides this, there is a tradition, that the first knit stockings were brought to France from that country. However this may be, it is certain that the first letter of foundation for this guild, named 'la Communauté des Maitres Bonnetiers au Tricot,' is dated the 16th, or, as others say, the 26th of August, 1527. St. Fiacre, I shall here remark, was the second son of Eugenius, who is said to have been king of Scotland in the beginning of the seventh century; he lived as a hermit at Meaux, in France, and his name in the sacred calendar stands opposite to the 30th of August. It must however be acknowledged that Savary's conjecture rests only on a very slight foundation.

"Somewhat more probable is an opinion, which has been long prevalent in England, and is supported by the testimony of respectable writers. Howell, in his *History of the World*, printed in 1680, relates that Henry VIII., who reigned from 1509 to 1547, and who was fond of show and magnificence, wore at first woollen stockings; till by a singular occurrence he received a pair of knit silk stockings from Spain. His son Edward VI., who succeeded him on the throne, obtained by means of a merchant named Thomas Gresham, a pair of long Spanish knit silk stockings; and this present was at that time highly prized. Queen Elizabeth, in the third year of her reign, that is in 1561, received by her silk-woman, named Montague, a pair of black silk knit stockings, and afterwards would not wear any other kind.

"This information is confirmed by another account. It is related in Stow's *Chronicle*, that the Earl of Pembroke was the first nobleman who wore worsted knit stockings. In the year 1564, William Rider, an apprentice of Master Thomas Burdet, having accidentally seen in the shop of an Italian merchant a pair of knit worsted stockings, procured from Mantua, and having borrowed them, made a pair exactly like them, and these were the first stockings knit in England of woollen yarn.

"From this testimony, it has been hitherto believed in England that knit stockings were first made known there under Henry VIII.; that they were brought from Spain to that country; and that the invention belongs, in all probability, to the Spaniards. Were this really the case, one might conjecture that the first knit stockings known in England were of silk, though the imitations made by Rider were of wool. For under Henry VIII., Edward VI., and Elizabeth, silk stockings only are mentioned; and at that period silk, and not woollen articles, were imported from Italy and Spain. Did the invention belong to the Spaniards, I should be inclined to conjecture that these people obtained it from the Arabians, to whom we are indebted for many useful and ingenious arts. But at any rate the conjecture of Savary falls to the ground; for as the French had a stocking-knitters' guild as early as 1527, it is highly improbable that the English, forty years after, or about the year 1564, should have been unacquainted with the invention of their nearest neighbours, the Scots.

"Some years ago, however, several learned men in England were led, by a singular circumstance, to collect information in regard to the antiquity of the art of knitting stockings. I here allude to the forgeries of Thomas Chatterton, who was born on the 20th of November, 1752, and terminated his unfortunate life by suicide on the 24th of August, 1770. This ingenious youth published some poems which he pretended were written by Thomas Rowley, who lived in the reign of Edward IV., that is about the year 1461. Many literary men denied the authenticity of these poems, though they possessed great beauty; proclaimed Chatterton to be a second *Palmanasor*; and justified their opinion by the circumstance of knit stockings being mentioned in them. This they said was an anachronism, as the invention of knitting stockings, according to Howell and Stow, must be a century later than the supposed poet Rowley."

Of the invention of the stocking-loom, Beckmann says, that—

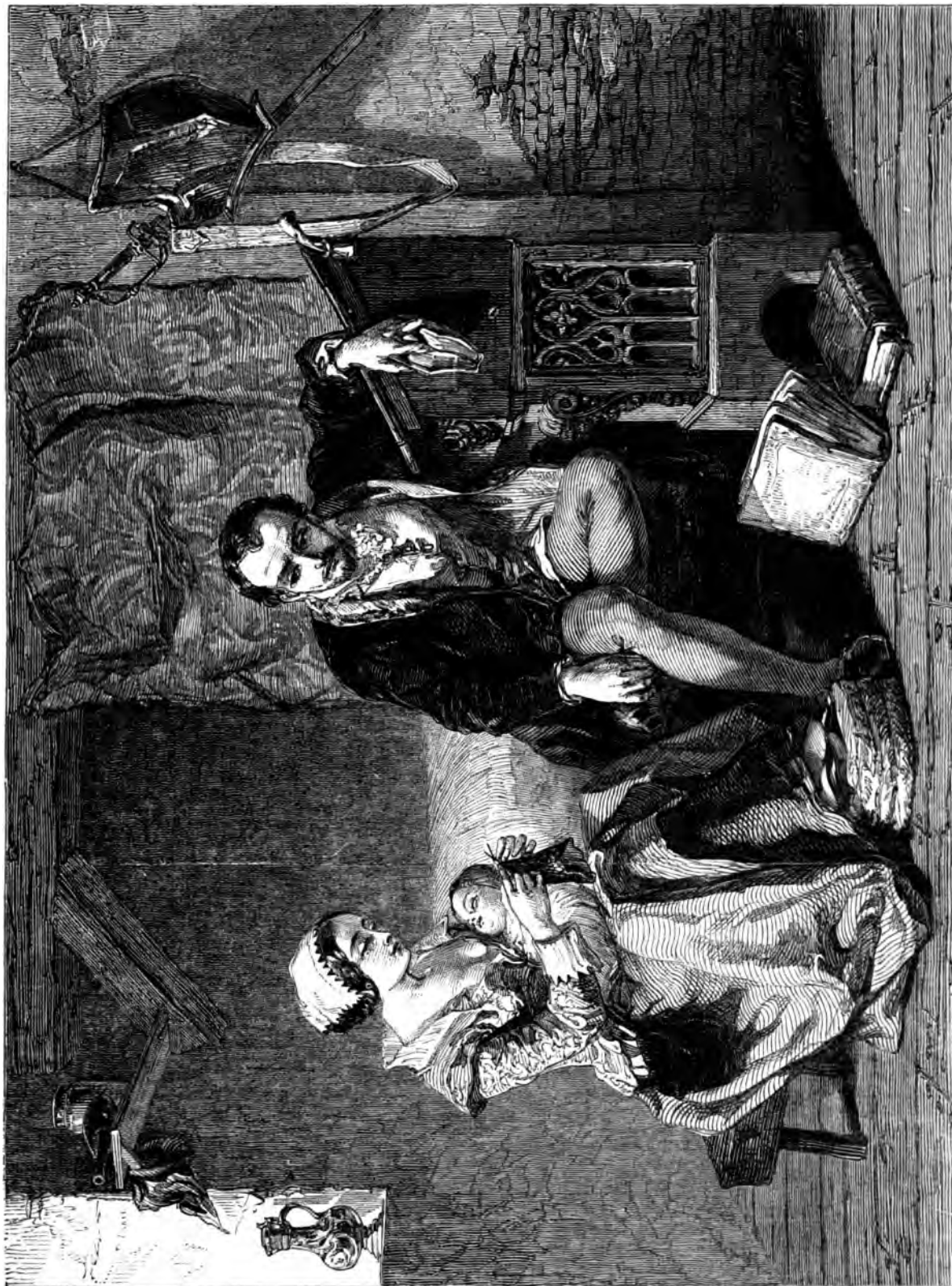
"It is worthy of more admiration, when one reflects that it was not a matter of accident, like most of the great discoveries, but the result of talents and genius. It is a machine exceedingly complex, consisting of two thousand parts, which, in a moment almost, can make two hundred meshes of loops, without requiring much skill or labour in the workman. There are few descriptions of this machine; and those published do not fully answer the purpose.

"Under the administration of Cromwell, the stocking-knitters of London presented a petition, in which they requested permission to establish a guild. In this petition they gave to the Protector an account of the rise, progress, and importance of their art or trade; and there can be no doubt that this well-written document contains the oldest authentic information in regard to this invention, which was then scarcely fifty years old. Every thing must then have been fresh in the memory of those by whom it was drawn up; every circumstance could easily be examined; and the petitioners must have been sensible that their misrepresentations, for which, however, they had no reason, could easily be contradicted. However unimportant my research may appear, it gave me much pleasure to find a copy of this petition in Deering's *Account of Nottingham*, in which the author has collected many authentic circumstances from the records of that town, where the loom was first employed and enriched many families, and whence the use of it was spread all over England and Europe.

"From these it appears that the real inventor was William Lee, whose name in the petition is written *Lea*, a native of Woodborough, in Nottinghamshire, a village about seven miles distant from the town of Nottingham. He was heir to a considerable freehold estate, and a graduate of St. John's College, Cambridge. It is reported, that being enamoured of a young country-girl, who, during his visits, paid more attention to her work, which was knitting, than to her lover and his proposals, he endeavoured to find out a machine which might facilitate and forward the operation of knitting, and by these means afford more leisure to the object of his affection to converse with him. Love indeed is fertile in inventions, and gave rise, it is said, to the art of painting; but a machine so complex in its parts and so wonderful in its effects, would seem to require longer and quieter reflection, more judgment, and more time and patience, than can be expected in a lover. But even if the cause should appear problematical, there can be no doubt in regard to the inventor, whom most of the English writers positively assert to have been William Lee.

"Aaron Hill seems to make the stocking-loom younger, and relates the circumstance in the following manner. A student of Oxford was so imprudent as to marry at an early period, without money and without

income. His young wife, however, was able to procure the necessities of life by knitting; but as the natural consequences of love, an increase of family, was likely to render this soon insufficient, the husband



THE INVENTION OF THE STOCKING-LOOM.—FROM A PICTURE BY FLORIS.

invented a machine by which knitting could be performed in a speedier and more profitable manner. Having thus completed a stocking-loom, he became by its means a man of considerable wealth. But Hill, in his account, gives neither names, date, nor proofs; and as he seems to have formed it from an imperfect remembrance of what he had heard or read in regard to Lee, it is not worthy of further examination.

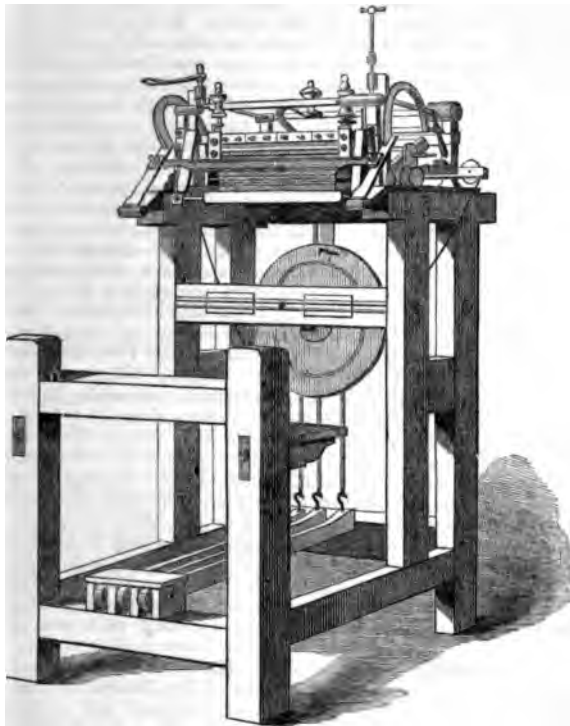
"Deering says expressly that Lee made the first loom in the year 1589; and this account has been adopted by Anderson and most of the

English writers. In the Stocking-Weavers' Hall, at London, is an old painting,* in which Lee is represented pointing out his loom to a female knitter, who is standing near him; and below it is seen an inscription with the date 1589, which was the year of the invention. Other

* We have made diligent search for the picture here spoken of, but as yet without success; indeed, we cannot find any such Hall as that of the "Stocking-Weavers." Perhaps some of our readers can favour us with information.—Ed.

unts make it somewhat later. Thus Howell, after relating that Elizabeth obtained the first stockings in 1561, says that thirty-years after the loom was invented by Lee; in which case the period would be 1600. In the petition of the stocking-knitters it is stated the loom, at that time, had been found out about fifty years. It is regretted that this document has no date; but as Cromwell died from 1653 to 1658, the invention would fall in the beginning of the seventeenth century. It is more probable, however, that it belongs to the end of the sixteenth.

Lee instructed his brother James in the use of the loom, and took apprentices and assistants, with whom he carried on business for some years at Calverton, a village five miles distant from Nottingham. On account, Calverton has by some been considered as his birth-place.



GENERAL VIEW OF THE STOCKING-LOOM.

Lee showed his work to Queen Elizabeth, who died in 1603, and was not rewarded from that princess some support or remuneration; but he needed neither, and was impeded rather than assisted in his undertaking. Under these circumstances, Lee accepted an invitation from Henry IV., King of France, who had heard of this invention, and promised to give a handsome reward to the author of it. He therefore went to France, and there he worked with great approbation; but the king being assassinated, and internal commotions having taken place, Lee fell into great distress, and died soon after at Paris. Two only of his people remained in France, one of whom was still alive when the before-mentioned petition was presented to Cromwell. Seven of them returned to England; and these, with a person named Aston, who at first was a miller at Calverton, the place of his birth, but afterwards an apprentice to Lee, whom he had been left behind in England, where he made some improvements in the loom, laid the foundation of the stocking manufactory in that country. The number of masters increased there in the space of fifty years so much, that it was found necessary to unite them in one guild; for which Cromwell, however, in consequence of reasons unknown, refused the proper sanction; but in 1663 they received a patent, which gave them certain privileges to the extent of ten years round London.

DESCRIPTION OF THE STOCKING-FRAME.

For what was said in the opening portion of the present article, we speak of describing the stocking-frame, as invented by Lee, and upon which a few improvements of any importance have been made since, are comparatively easy. We have only to bear in mind that, instead of one pair of needles, or one single crochet needle, we have a row of crochet needles, with hooked or barbed points, for the purpose of drawing one line, or length of thread, in loops, through the eye of the former row. Fig. 1 shows the shape of one of these needles, it being borne in mind that in the straight part or shaft there is a groove, to receive the point of the barbed part, when by the pressure of the block *F* it is depressed sufficiently. The object in thus using the point is to close the eye of the needle; so that, if a thread be looped over the wire or stem of the needle, and drawn

forward while the barb is thus closed, it will draw over the barb of the needle, and come off at the end of it; whereas, if the thread is drawn forward while the barb is open, it will be drawn under the hook and thus detained. Such being the form of the needles, they are fixed in the frame in a row, with the proper-bar, *r*, above them, and are ready to act upon the thread when set in motion by the hand of the operator.

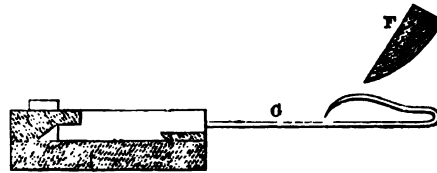


Fig. 1.

The next portion of the machinery to be described is that for forming the loops. This is rather complicated and difficult of verbal explanation. The general principle of the machinery, however, will be understood on reference to fig. 2; which consists of two moving parts called *jacks*,

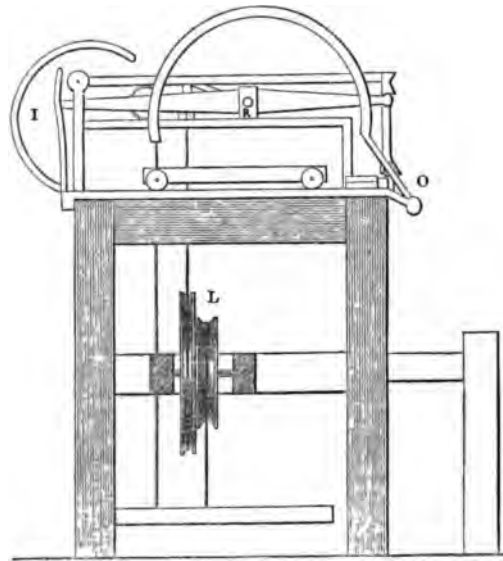


Fig. 2.

being a succession of horizontal beams working upon a common centre (only one of these being shown in the cut). In connection with the external ends of these jacks, at *o*, are a succession of thin plates of polished iron, called *sinkers*: and one of these jacks and sinkers is

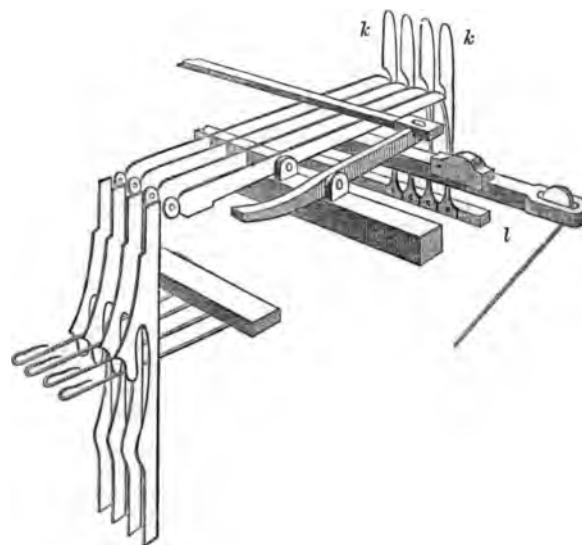


Fig. 3.

allotted to every alternate needle in the frame; this is more clearly shown in fig. 3. When the jacks are in a horizontal position they are secured by small iron springs, *k k*; each spring being a small obtuse-angled notch, against which it presses by its own elasticity.

It will be seen that when the jack-sinker is elevated, so that its nip, *f*, is above the level of the needle ready to receive the thread, the end of the tail is received into the notch of the spring, *k*, which retains it in its position; but at the same time a small force applied beneath the tail of the jack to lift it up will depress the nip, *f*, of the jack-sinker below the needles.

We have now to speak of what are called the *lead-sinkers*; those above spoken of being called *jack-sinkers*, from their being attached to the moveable beams or jacks. The lead-sinkers are exactly like the former, except that they are fixed to one bar, called a sinker-bar, marked *p*, in fig. 4. These are placed alternately between the jack-sinkers; and between each sinker throughout is a needle.

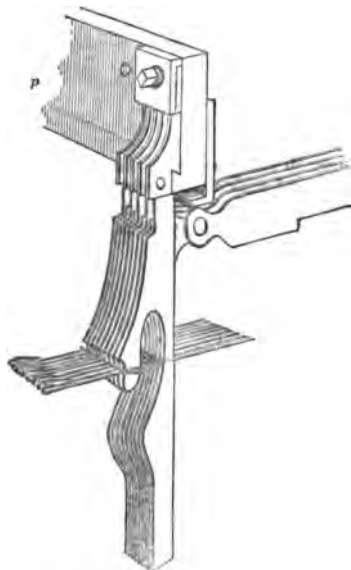


Fig. 4.

In order to conduct the thread across the machine, from right to left, and from left to right, with as little friction as possible, a slight iron bar, *l*, fig. 3, called the *slur-bar*, is extended beneath all the jacks, and upon this a piece of metal, called the *slur*, travels upon rollers. This slur is drawn by a line extended on each side, and conducted over a pulley at each end of the bar, *l*, to be carried round the slur-wheel, *L*, fig. 2, which is worked in an alternate motion by the treadle of the weaver. This slur, as it travels backwards and forwards, depresses (only one at a time, but in very rapid succession) the jacks, which were retained in their horizontal position as above described. When all the jack-sinkers are thus depressed, a loop of thread is formed between every other

pair of needles, the workman depresses the lead-sinkers, and their nips carry down the thread between the remaining needles in loops all at the same time, so that there is now a loop between every needle in the frame. Those rows of loops being successively looped through one another by a motion of the hand-bar upon which the needles are fixed, successive layers or rows of the stocking material are produced. We say stocking "material," because under the old stocking machinery we have been describing, the stocking is not completely made, being in a flat piece, and requiring closing up at the back; which is done by a distinct set of operatives called *seamers*.

Such, in general terms, is the scheme of the arrangements of the stocking-frame, as it was invented by Lee, and which remained unimproved for upwards of a century. We shall, in a future number, go into the improvements which have since been made—which are not numerous—so as to give the reader a complete notion of the present state of this important and interesting manufacture.

LECTURE BY MR. OWEN JONES ON THE PRINCIPLES OF DECORATIVE ART.

AT this moment nothing can be more practical or better timed than a good and instructive disquisition, showing the true and false principles of Decorative Art. Public attention is alive at this moment to the subject. It is fit, therefore, that every one should know that at this time our Decorative Art is conducted entirely upon false and bad principles. To demonstrate that point, and show that the true may now be easily attainable, Mr. Owen Jones delivered the first of a series of four lectures in the theatre of the Department of Practical Art, at Marlborough House, Pall Mall, on Saturday last.

The lecturer started with the assertion of the melancholy truth, that of European nations, England is at this moment behind all others in the principles of Decorative Art. He admitted the difficulty of defining properly the exact relations of form and colour; but he felt certain that it was possible to obtain and collect a fund of knowledge by which to guide the young and abate the chaos which exists in Art. As for the particular views which he intended to put forward, he was certain that what of truth they might contain would be useful to his hearers, whilst the false would soon be eliminated by the discrimination of the public.

Decorative Art, he then contended, arose from architecture; and architecture was the material expression of the wants, the faculties, and the sentiments of the age in which it was created. The systems of colour and ornament would be found pervading all ages; yet now the people most concerned fancied they could go better on their own book, and hence might be found to flow the present disorder of architecture and tendency to copying. The history of architecture was the history of the world and of nature,—the primary styles changing

according to local influence, but being in all subject to the climate, manners, religion, and the changes to which nations are subjected during the course of ages. The lecturer illustrated this by describing the primary style of Egyptian architecture, which became secondary after its admixture with Greek elements, and tertiary when the Romans prevailed. Arabian Art had similar phases; but each primary style had its originality, a quality now rarely sought at a time when revived classical periods are jumbled together in mere ignorance of imitation, and used merely as quarries from whence to erect new monuments. The progress of architecture might be described as a sudden rise to perfection, and a gradual declining in a long lapse of centuries. It reached its apogee when the Parthenon was built; for even in the Egyptian temples of a late construction a decline was visible. Each primary style arose with the civilisation which created it. Religion was the feature which directed the artists. In the ornamentation of the old temples of Egypt the symbol of religion and the history of the nation were preserved; in that of its tombs was the history of its arts and sciences. After the Roman conquest, the Ornamental Art of the Egyptians became merely mechanical; for though splendid temples were erected, the dwellings of the people were such as might be washed entirely away at every inundation of the Nile. The Greeks formed a new primary style, because they had a different religion. Nature, which the Egyptians worshipped, was exchanged by the Greeks for beauty. It was beauty that they ever sought to embody in their art, and the Romans failed to emulate their perfection, because they gave up that standard and took up a less exalted one—the useful,—under the influence of which it is true they produced such monuments as the Colosseum, but nothing like the splendid conceptions of the Greeks. After all, there was no style more beautiful than the pagan. Christian Art was much more meaningless, and every attempt to revive originality had been meaningless since the Reformation. The Protestant religion had a feeling which Gothic Art could not supply. Where was now the use of screens and chancels? They must be thrown aside; but it was doubtless difficult to say what should replace these at a time when Mammon was our god and Commerce its high priest. The industrial movement of railways might have been supposed to create some new architectural feature or to aid Art; but artists were unprepared for the outburst, and though there was a desire for improvement, new works should have suggested forms more in unison with our time. Was not the case of the Mahomedans an example? for they had transferred to their temples the symbol of their religion and the precepts of their God, and they still practised the art which grew up with their religion. But it was fatal to reproduce merely the styles of other countries, when their peculiarities were not in harmony with the present time.

After some further general remarks, Mr. Owen Jones proceeded to show, that as architecture, so all works of the Decorative Arts to be perfect should possess fitness, proportion, harmony, and, as a general result, repose. The great fault of our age was want of purpose in decoration. Walls were ornamented like carpets, and *vice versa*, without regard to fitness, proportion, or harmony; iron was treated like stone, and wood in the same style as marble. Then, also, construction, he contended, should be decorated—decoration never purposely be constructed. That which was beautiful was sure to be true, at the same time that that which is true must of necessity be beautiful; two propositions which he affirmed, notwithstanding the contrary opinions of certain philosophers. The lecturer illustrated this by exhibiting a design for a bracket, where the beauties of the ornamentation were all shown to tend to a useful purpose in the formation of the article which they served to show off. Nowhere, he said, were these rules more universally disregarded than in the manufacture of modern furniture.

Then, as regarded the production of beauty, he showed that beauty of form was produced by lines growing out one from the other in gradual undulations without excrescences, which on being removed might leave the design equally good or better. No beauty could exist without repose, and that was a result only attainable by transitions from curve to straight—a quality in which the Greeks excelled. The general forms being thus cared for, then followed decoration of the surfaces by subdivision and ornamentation of general lines, the interstices being gradually filled in, which might again be subdivided and enriched for closer inspection. True proportion was always found to reign between all the members which composed a true specimen of architecture; and so throughout the Decorative Arts every assemblage of forms should be arranged on certain definite proportions, the whole and each particular member being a multiple of some simple unit. But in carrying out this law it might be remarked—and the lecturer illustrated it by diagrams—those proportions would be most beautiful which it would be most difficult for the eye to detect. The ancients always determined that each part should be an integral part of the whole. Compositions of squares or circles were sure to be monotonous, but more subtle ratios, as in numbers 5 to 8, or 3 to 7, would be found most pleasing. Form itself, to be harmonious, should consist in the proper balancing and contrast of the straight, the angular, and the curved. Here the system of harmony was the same as in colours, which had three primary features, that might be subdivided *ad infinitum*, and this truth was easily deduced from an examination of any specimen of the Greek and Gothic architectures. Surfaces decorated in straight lines were monotonous; but if an angle was exhibited the spectator immediately felt increased pleasure; and the neglect of this

rule was a want of repose and want of satisfaction to the eye, which the failures of the present day amply demonstrated. The Mahomedans only infringed this rule in one case, and that was in the manufacture of prayer-carpet, where the lines were made to converge to a point which by the Faithful was always directed towards Mecca at the moment of kneeling; for the effect of mere straight lines is invariably to take the eye to the horizon, and the effect is only counteracted by a due proportion of angles and curves. Yet, this diversion from established rule has been copied in England, although the cause did not exist, and furnishes an instance of the mode in which the tone of the public mind for harmony is destroyed.

Mr. Owen Jones devoted the next portion of his lecture to showing that in surface decoration all hues should flow out of a parent stem. Every ornament, however distant, should be traced to its branch and root, and all junctions of curved lines with curved, or of curved with straight, should be tangential, and then be proved by reference to the established old Oriental practice. The first of these propositions he illustrated by a vine-leaf, which he said the Arabs especially held in their view, and by a chestnut leaf. He showed how these ancient people understood the principle of radiation and curves by gradual undulation. The Greeks, unlike the Egyptians, made their ornamentations grow out of one another, as the cactus-leaf gave them the example. These principles, he contended, were vital ones in ornamentation; but they had been abandoned in the mutation of styles, and this abandonment he described as specially visible in the Elizabethan period, but almost as much in these modern times. The lines of Elizabethan ornamentation were also remarkable for abutting, instead

of being tangential, a great defect which the moderns imitate, but the old nations invariably avoided. He insisted, and proved by diagrams, that curves were most pleasant when least formal and apparent. In the Parthenon the ornaments were all portions of curves, and not segments of circles. The absence of all appearance of the compass was a great feature of old ornamentation.

With regard to imitation of natural objects, the lecturer concluded by saying, that he could not too much deprecate the practice almost universal at this time of using flowers or other natural objects as ornaments. Conventional representations founded upon them, and sufficiently suggestive to convey the intended image to the mind without destroying the unity of the object they were employed to decorate, was all that should be sought, and all that the best periods of Art allowed; the contrary principle had always ruled when Art declined. The Egyptians took the lotus as a symbol only. In Greece floral imitation was also symbolical, never natural; and it was the same in Gothic styles. Even the Chinese, uneducated as they were, steered clear of this, and in their vases only indicated the figures by lines and compact masses of colour without a shadow; so did also the Greeks.

Mr. Owen Jones closed his interesting lecture by asserting that the principles discoverable in the works of the past belonged to us, but not the results; for to assume the latter would be to take the end for the means. No improvement could take place in the Art of the present generation until all classes—artists, manufacturers, and the public—were better educated in Art, and the existence of general principles was more fully recognised.

Miscellaneous Notices.

ELECTRIC TELEGRAPH BETWEEN ENGLAND AND IRELAND.

A submarine telegraph between the coasts of England and Ireland is now an accomplished fact. The parties to whom the honour is due of solving this great practical problem (there have been no less than three in the field), are those who are associated under the title of the Irish Electric Telegraph Company; and the cable used for the purpose has been manufactured for that Company by the same eminent firm which supplied that for the Dover and Calais line—Messrs. Newall, Milnes, and Gordon, of Newcastle-on-Tyne.

On the 1st instant, at four o'clock, the Britannia steamer started from Holyhead with the cable on board, stated to weigh about 110 tons, preceded by her Majesty's steamer *Prospero*—a vessel furnished by the Admiralty as a pilot to the expedition. The steamers proceeded at a low rate of speed, varying from four to six miles an hour, paying out the wire with the greatest care and precision as they receded from the English coast; and at length, after a passage of little more than sixteen hours, and without the occurrence of any *contretemps*, arrived at Howth Harbour amid the cheers of those who had assembled to witness their approach. The moment the Britannia had arrived at her destination, and communicated the fact to Holyhead that the Irish shore was reached, the final grand test was applied to the telegraphic cable by connecting the wire with one of the ship's loaded guns, and passing the word "Fire!" to Holyhead. The answer was the immediate discharge of the gun on board the Britannia. The hour was then just half-past eight o'clock. The work had been performed in little more than eighteen hours! Messages were now rapidly interchanged, and a salute of the Britannia's guns fired from Holyhead. Another hour, and the cable was ashore, the connection completed with the land wires, and the indicators at the Dublin terminus of the Drogheda Railway, in Amiens-street, were conversing with those at the terminus of the Chester and Holyhead Railway, in Holyhead.

The cable is not composed of four wires, like the one from Dover to Calais, but consists of a single copper wire, perfectly insulated with gutta percha, and protected by an outer covering of iron galvanised wires. In order to secure the cable from injury by the tides and the sharp rocks, it has a double covering of iron wires from each shore for some considerable distance into the sea. The double covering of the seventy miles of wire with gutta percha was done by the Gutta Percha Company, at their works, in Wharf-road, City-road; it was then shipped to Gateshead, where the task of adding the iron galvanised wires was performed by Messrs. Newall and Co.

INDUSTRIAL EXHIBITION AT BRESLAU.

A long nave, a transept, a fountain in the centre and side aisles and galleries characterise the new building which is now open at Breslau for the purposes of an Industrial Exhibition. The building stands on the Exercier Platz. Two long wings and a gable-roofed centre form the exterior, which has no very great architectural effect. The edifice is in the

ensemble about one twenty-fourth part of the size of our Crystal Palace; but this is ample for the wants and ambition of Silesia. The staple products of that province are well represented by specimens of iron, linen, and woollen manufacturers. There are numerous specimens of fossils, ores, and minerals. Machinery in motion is a feature of the affair, and the fine arts have not been neglected. But there is wanting to the building, the beauties of glass, the roof being of ordinary beams and slated. The exhibition is, however, extremely creditable to all concerned.

The "Times," in a recent notice of this exhibition, says of the Silesian iron:—"The most extensive display of iron, in all the stages of its manufacture, is sent from the numerous forges or *Hütten* of Count Renard, who alone occupies a large portion of the basement of the building. The quality of the metal produced at his works has secured it a local reputation, though other establishments, as the Laura Works, at Beuthen, produce iron in bar and the larger forms in greater quantity. The Renard Works are unrivalled in the finer sorts, and of hoop iron, nail-rods, wire, cast-iron for cooking vessels, steel in many varieties, especially forged steel of the finest quality, there is a most abundant supply. Sheet-iron is exhibited from these works of such a degree of tenuity that the leaves can be used for paper. A bookbinder of Breslau has made an album of nothing else, the pages of which turn as flexibly as the finest fabric of linen rags. As yet no extensive application for this form of the metal has been found, but the manager says the material must precede the use for it; perhaps, books may hereafter be printed for the tropics on these metallic leaves, and defy the destructive power of ants of any colour or strength of forceps. We have only to invent a white ink, and the work is done. Of the finest sort the machinery rolls 7,040 square feet of what may be called leaf-iron from a cwt. of metal. In point of price, however, the Silesian iron cannot compete with English; much is still smelted with wood, and the coal and iron districts lie at great distances from each, so that much capital is consumed by the conveyance of fuel to the works.

THE IRISH EXHIBITION AT CORK.

The principal, or fine arts court, is 177 feet long, and the dome is 53 feet span and 50 feet in height. The arch of the dome will have a moulded cornice, decorated with shields and banners, supported on retiring columns backed with crimson drapery. The roof is supported by 16 semicircular laminated ribs, resting on cast-iron pillars. The end of the hall is semicircular. The organ is now in course of erection there, and in the centre a pyramidal fountain is being constructed. Six purlins run the full length of the building. Between the main ribs, and abutting on the purlins, are intermediate smaller ribs, which carry the sheeting. An unbroken line of roof-light, 14 feet wide, glazed with 21-ounce glass running the entire length, surmounts the whole. On either side of the hall are two galleries, each 150 feet long by 30 feet wide. It will be approached from the northern hall by a vaulted arch 40 feet high and 18 feet wide, supported on ornamental pilasters, with figures on pedestals at either side. There are also two squares of sheds, now being covered in and floored, each 110 feet by 85. These are for the reception of raw materials,

machinery, carriages, and heavy goods. A steam-engine to keep the machinery in motion will adjoin this building. The whole available space of the exhibition buildings presents a superficial area of 42,525 feet. The banquet-hall will be 90 feet long by 53 feet wide, and 40 feet high, supported by columns decorated with banners and festoons in the French style, and lighted by 10 chandeliers. Attached will be the drawing-room, 150 feet long by 30 feet wide, with a vestibule or entrance-hall fitted up in the style of a Turkish tent. They will be lit with gas; and immediately adjoining will be a kitchen, with cooking-range, pipe water, servants' rooms, and retiring-rooms. They will be entirely apart from the exhibition buildings, and will be approached by a separate carriage-way from the main entrance. The executive committee are likely, according to our authority, the "Cork Constitution," to open the exhibition with money in hand.

NEW APPLICATION OF BITUMEN.

A specification appears in "The Repertory of Patent Inventions," for last month, of a patent obtained by Lord Dundonald for the employment of the natural bitumen of Trinidad and elsewhere, as a material for the construction of drainage pipes, reservoirs, and many other purposes to which pottery, brick, or iron, are at present applied. The patentee employs the bitumen in various stages of hardness according to the purpose for which it is required, and if, as there seems no good reason to doubt, this product can be obtained in sufficient abundance, it appears to possess several advantages in special cases where pipes, &c., are subjected to frequent and sudden vibration, over either pottery or iron. It will be not a little singular if one of the earliest materials on record employed in the construction of the habitation of man, should, although for a somewhat different purpose, be again introduced, in this age of the world, for purposes connected with building after its disuse for ages.

THE CHINESE JUNK.

This large specimen of clumsy ship-building has lately been disposed of for 2900*l.*

NINEVEH.

One of the bricks brought from the ruins of Nineveh, beside the letters inscribed on it, is marked with the footstep of a weasel, which must have run over the brick before it dried; so that the record of the existence of the mighty Assyrian king and the diminutive animal, has been stamped on the same piece of clay.—*Scientific Record.*

GOLD QUARTZ MANUFACTURE.

We are told that the manufacture of large lumps of spurious quartz gold has been carried on somewhat extensively of late in California, the means adopted being to mix with real gold in a state of fusion pieces of quartz silver and copper, which, when cooled, have completely the appearance of the real quartz.

To Correspondents, &c.

The picture of "Waiting for a Reversion," of which we gave an engraving in No. 5, was there wrongly ascribed to J. Underhill;—it was painted by Hemsley.

GROUP OF SAINTS.—TADDEO GADDI.

THE present century, among the various changes it has produced in matters of art and taste, exhibits one very striking and important feature, which clearly distinguishes it from other ages, in its pertinacity

for looking back as an assistance in the act of progression. All works of the Middle Ages were, a hundred years ago, alike neglected and despised as relics of a period clouded by ignorance and stained with barbarism; and it was considered that nothing in painting, sculpture, or architecture could be worthy of imitation, or even of notice, which

did not belong to the days of the classical Greeks and Romans, or to a date since the "revival" of the 16th century. Our forefathers carried this feeling to such an extent, that, as it is well known, the "restoration" of an ancient Gothic edifice, ecclesiastical or secular, if required, was by them carried out in a style completely at variance with the original; but, as they imagined, in a purer and a better taste. There have, however, since been discovered, in these mediæval monuments, beauties which were then misunderstood and unappreciated; and the style which they have handed down to us has formed the type of four-fifths of the churches erected in the nineteenth century.

The paintings of the Middle Ages are now also regarded in a new light. Ancient diptychs and triptychs are no longer converted into gaudy cupboards, or destined for a more destructive fate; nor are pictures from the giant pencil of Giotto any longer classed with the efforts of South-Sea Islanders, and so handed over to the shop of the insignificant broker.

We now see in the early school of painting the germ of all the light and life and loveliness which was so refulgent under Raffaele and Titian: we enjoy tracing, step by step, the dawn of anatomy—light and shade and perspective—in these quaint works upon gold backgrounds; we admire them as the fathers of an heroic race, and we treasure them as historical documents. Exactly in such a view must be regarded the two pictures by Taddeo Gaddi, the pupil and successor of Giotto, lately presented to the nation by the liberality of Mr. Coningham, and deposited in the National Gallery.

We present to our readers an engraving of one of these works, perhaps the more artistic of the two. It portrays a group of saints: the centre in the lower line is St. John and the three above are St. George between St. Peter and St. Barbara. It is painted in bright colours, on a background of gold, richly engraved, according to the custom of the period, with *nimbi* and ornamental patterns.

The pictures are in a fine state of preservation, and, as the representatives of a school, are a valuable, if not an absolutely necessary, acquisition to the walls of our National Gallery.



A GROUP OF SAINTS.—IN THE NATIONAL GALLERY.

THE PEOPLE'S ILLUSTRATED JOURNAL

OF
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SATURDAY, JUNE 19, 1852.

PRICE TWOPENCE.



THE MOTHER'S HOPE.—J. SANT. (SEE PAGE 119.)

TEA.*

MR. FORTUNE'S "Wanderings through the Northern Provinces of China" were published full five years ago. The publication appears to have caused the East India Company to depute the author to venture again to China with a more specific purpose, namely, that of obtaining the finest varieties of the tea-plant, as well as native manufacturers and implements for the government tea-plantations in the Himalayas; and in which objects he was successful. The author landed

* "A Journey to the Tea Countries of China, including Sung-lo and the Boha Hills; with a short notice of the East India Company's Tea Plantation in the Himalaya Mountains." By Robert Fortune, Author of "Three Years' Wanderings in China;" with Map and Illustrations. MURRAY.

in Hong-Kong on the 14th of August, 1848. His consequent visit to the tea districts of China and India was productive of extensive and curious information, inasmuch as he was enabled to go far inland, and visited many places unknown to Europeans. Upwards of twenty thousand tea-plants, eight first-rate manufacturers, and a large supply of implements were procured from the finest tea districts of China, and conveyed in safety to the Himalayas. In the course of his travels also, Mr. Fortune discovered many useful and ornamental trees and shrubs, particularly the funeral cypress, calculated to produce a striking and beautiful effect in English landscape, and especially in cemeteries.

The weeping cypress, just described as the funeral, is peculiar to a certain district, and was discovered accidentally during a ramble. Mr. Fortune first saw it at half a mile distance, seemingly a noble-looking

fir-tree, some sixty feet high, with a stem as straight as the Norfolk Island pine, and weeping branches like the willow of St. Helena. Its branches grew at right angles to the main stem, then described a graceful curve upwards, and bent again at their own points. From these main branches others long and slender hung down perpendicularly, and gave the whole tree a weeping and graceful form, reminding the spectator of some large and gorgeous chandelier seen in a theatre or public hall. Its leaves were formed like those of the well-known *arbor vite*, but thinner and more elegant, and it was covered with an abundance of ripe fruit.

According to the opinion of Professor Lindley, this tree, like the weeping willow in growth, with the foliage of the savin, is a genuine cypress, not a juniper, and is a finer tree than the Italian cypress which cannot be made to endure our climate, which this will, besides being better adapted for decorating English burial-places.

Our business, however, lies with the breakfast-room and the tea-table, not the grave-yard and the mausoleum. The districts near Ning-po are the ordinary ones to the Chinese for procuring very fair green teas;—but the Kwuy-chow district had never been visited, and Mr. Fortune preferred obtaining plants from the tea-hills there, though attended with much difficulty. None, save the Jesuit missionaries and the Rev. Mr. Medhurst had ever penetrated within the sacred precincts. For this purpose, Mr. Fortune adopted the Chinese costume, and had the tail which he had worn in former years, nicely dressed by the barber. Having hired a boat in conjunction with two Chinese, his servants, he threaded the rivers and canals that intersect the country to the westward of Shanghai, and lead to almost all the towns and cities in that part of the province. In this manner they visited the city of Kea-hing-foo, a large place walled and fortified, containing nearly 300,000 inhabitants. On the banks of the canal, and in patches over all the country, the mulberry flourished in great abundance. In the course of his progress Mr. Fortune had to pass through the great and rich city of Hang-chow. The natives here, both rich and poor, dressed



A MANDARIN AND HIS WIFE.

in silks and satins; indeed, said they, one can never tell a rich man in Hang-chow, for it is just possible that all he possesses in the world is on his back.

On the Kwuy-chow river our traveller was nearly drowned by a conspiracy of the boatmen. Once fairly inside the district, he was able as usual, to ramble about in the country. Crops of millet and Indian corn then were just ripening.—it was the 2nd of November,—and the Chinese had begun to harvest them. Many of the less fertile hills were clothed with juniper and pines, and the whole scene was surpassingly beautiful. Here Mr. Fortune collected seeds of the tea-shrub and of other new plants which he had discovered. The great article in trade in these spots is green tea. Numbers of large dealers buy it from the farmers and priests, refine and sort it, form it into chops, and forward it to Shanghai or Canton, where it is sold to the foreign merchant. Our author observed, also, a great number of carpenters' shops for the manufacture of tea-chests, a trade which of itself employs a large

number of hands. The town and surrounding populous districts are supported by the foreign tea-trade.

The tea-shrub is multiplied by seeds, which are ripe in October. When gathered, they are generally put into a basket and mixed up with sand and earth in a damp state, in which condition they are kept till spring. If this plan is not pursued, only a small portion of them will germinate. Like the seeds of the oak and the chestnut, they are destroyed when exposed to sudden changes in temperature and moisture. In the month of March the seeds are taken out of the basket and placed in the ground. They are generally sown thickly in rows or in beds in a nursery, or in some spare corner of the tea-farm; and sometimes the vacancies in the existing plantations are made up by sowing five or six seeds in each vacant space. When the young plants are a year old, they are in a fit state for transplanting, which is always done at the change of the monsoon in spring, when fine warm showers are frequent. They are planted in rows about four feet apart, and in groups of five or six plants. The distance between each group or patch is generally about four or five feet. The first crop of these leaves is taken from these plants in the third year. Under cultivation, they rarely grow higher than three or four feet. In severe winters the natives tie straw bands round the bushes to protect them from the frost, and to prevent it and the snow from splitting them.

The place where the green tea-shrub was first discovered and green tea first manufactured, is a hill called Sung-lo or Sung-lo-shan. It is situated in the province of Kiang nan, and district of Hieu-ning, a town in lat. 29° 56' N., long. 118° 15' E. A bonze of the sect of Fo taught a Kiang-nan man, named Ko-Ty, the art of making tea. It speedily got into great repute, so that the bonze became rich, and abandoned the profession of priest. Sung-lo-shan appears to be between 2000 or 3000 feet above the level of the plains, is very barren, and now produces little, being, indeed, neglected, and the tea, so far as cultivated, gathered only for the priests of Fo, who have many temples among the rugged wilds. The low-lands of the district and of Mooyuen, situated a few miles further south, produce the greater part of the fine green teas of commerce, whence the distinction between hill-tea and garden-tea, the latter referring to those teas which are carefully cultivated in the plains.

People in Europe and in America have a foolish preference for coloured green teas. The colouring process is managed personally by the superintendent of the workmen, and is practised in the Hwuy-chow green tea country upon those teas which are destined for the foreign market. A portion of Prussian blue is thrown into a porcelain bowl, and crushed into a very fine powder; a quantity of gypsum also having been burned in charcoal fires, is pounded in the same manner, and reduced to powder in the mortar. The two substances, thus prepared, were mixed together in the proportion of four parts of gypsum to three parts of Prussian blue, and applied to the teas during the last process of roasting. About five minutes before the tea was removed from the pans,—the time being regulated by the burning of a joss-stick,—the superintendent took a small porcelain spoon and with it he scattered a portion of the colouring matter over the leaves in each pan; the workman then turned the leaves rapidly round with both hands in order that the colour might be equally diffused, the hands of the workmen becoming quite blue during the operation. It seems, says Mr. Fortune, perfectly ridiculous that a civilised people should prefer these dyed teas to those of a natural green. No wonder, he adds, that the Chinese consider the natives of the west to be a race of barbarians. They never drink dyed teas themselves, knowing them to be much better unadulterated with such ingredients, but remark that foreigners seem to prefer having a mixture of Prussian blue and gypsum with their tea to make it look uniform and pretty. And as these ingredients were cheap enough, they had no objection to supply them, especially as such teas always fetched a higher price. We suspect that the custom must have commenced in fraud on the part of the Chinese merchant. It is calculated that in every hundred pounds of coloured green tea, the consumer drinks more than half a pound of Prussian blue and gypsum. Samples of these ingredients, from the Chinamen in the factory, were sent over to the Great Exhibition of last year. Mr. Warrington, of Apothecaries Hall, stated, that, from their appearance, there can be no hesitation in declaring these tea-dyes to consist of calcined fibrous gypsum, turmeric root, and Prussian blue, the latter of a bright pale tint. It is found only in the north of China, is less heavy than common Prussian blue, and very beautiful.

The next great tea place is the city of Shaou-hing-foo, famous for a fine Buddhist temple erected on a pretty little hill outside the walls. There are many ornamental gates in the town erected to the memory of virtuous women; but its chief fame results from its number of literary men, who are scattered all over the empire. Wherever you meet them, it is their pride and boast to have received their education in the city of Shaou-hing-foo.

Mr. Fortune particularly examined the Chusan Archipelago, especially Silver Island, on which most green tea is grown,—good tea enough, but not prepared in a manner to suit the English or American markets.

Thus much perhaps may suffice concerning the growth and preparation of green tea. We must now take the reader to the Black-tea districts—the country of Woo-e-shan and the Bohoa mountains. To cross these was no child's play; and it was necessary to resort to the Bohoa mountain chair, purposely constructed for the traveller's comfort. It has above the seat a light bamboo frame covered with oil paper or glazed cloth; the seat has a back to it, formed at an angle of forty-five degrees, and as the chair itself, foot-board and all, is generally about

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THE MOTHER'S HOPE.—J. SANT. (SEE PAGE 119.)

TEA.*

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HAMPTON COURT.

CHILLY and uncongenial as the weather of late has been, there have yet been their thousands of the toiling millions who have "excursionised" from our brick-and-mortar Babylon to the picturesque ruralities of Hampton Court. Regardless of those "skiey influences" which too

often mar the English holiday, pleasure-seekers of every grade may be seen, betaking themselves to Hampton Court—by steamboat and railway, and, in short, by every variety of carriage which distinguishes this age of locomotion from its predecessors. Amidst all these "conveyances," however, none are more characteristic of the occasion than that which bears the attractive name of "pleasure-van," freighted with gaily-dressed



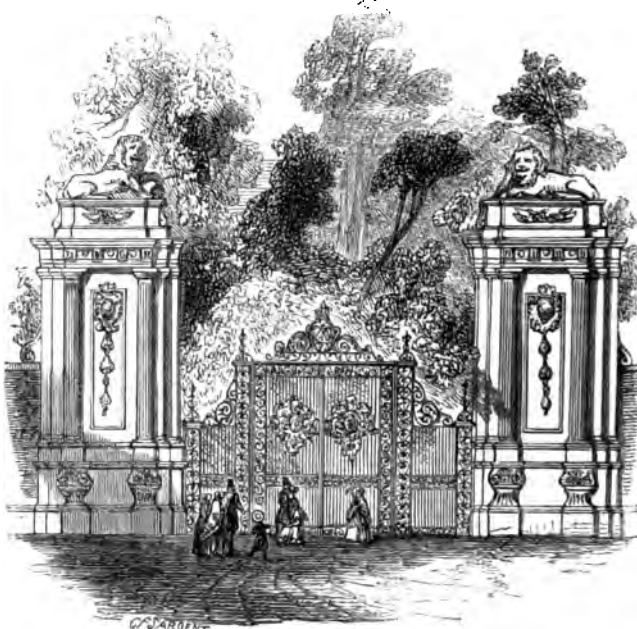
HAMPTON BRIDGE.

groups of holiday-seekers—the sons and daughters of toil, exchanging the smoke and stifling heat of the factory and workshop, and their black and dingy aspect, for the airiness and, perchance, the sunshine of early summer, and the gaiety and gushing beauty of leafy June. How

delightful, too, to exchange the clank and ceaseless hum of busy London for the minstrelsy of birds and the melody of rural sounds and rural song! and in such innocent recreation hundreds of happy faces tell us how the labour of the past week is forgotten.



WOLSEY'S GATEWAY, HAMPTON COURT.



THE PARK GATE, HAMPTON COURT.

Hampton Court is, unquestionably, our most popular holiday resort. Formerly it was an aristocratic and expensive place: the palace could only be in part seen, and then by payment of a fee, and the number of visitors was comparatively few. Now the public are admitted gratuitously; and on a fine Sunday one thousand persons pass through the palace per hour, for the fidgety housekeeper and her tinkling keys have disappeared, and the doors are really thrown open, to remain so. "A visit to Hampton Court Palace," says William Howitt, "is one of the bravest pleasures that a party of happy friends can promise themselves. Especially it is calculated to charm the thousands of pleasure-seekers from the dense and dusty vastness of London. It lies in a rich country, on the banks of the Thames; there, unmuddled by commerce, but flowing free and pure amidst the greenest meadows, scattered villas, and trees overhanging its clear waters, and adding to its glad aspect the

richness of their beauty. From the swelling hills of Esher, Richmond, and St. George, the palace is seen standing aloft amid a sea of woodland foliage, like a little town in extent. Its ample and delightful gardens, bounded by the splendid masses of its lime-tree avenues; its ancient courts, with all their historic recollections; its accumulated paintings, the cartoons themselves being part of them—all are thrown open to the leisure and perfect enjoyment of the public. There is no royal palace in England, excepting Windsor, which, after all, is to be compared with it; and this is, as it should be, given up to the use and refreshment of the people."

Of the several modes of reaching Hampton Court, the river route is, probably, the pleasantest, though not the most expeditious. To prepare himself for receiving the livelier impression from Hampton Park and Palace, Felix Summerly recommends the visitor to embark when

VIEW OF HAMPTON COURT PALACE.



the tide is favourable, on one of the Richmond steam-boats, from the upper side of London-bridge. He maintains that "the cheerful mill-stream dashing and foaming of the water under the paddles is assuredly preferable to the reverberating rattle of the streets, or the close dustiness of the suburban roads; while the ease and rapidity with which we

proceed, and the rainbow lightness with which, consequently, the successive arches, from the vast stretch of the Southwark to the contracted span of the Vauxhall, seem to fly over our heads, give to the whole moving scene—especially under the shifting lights of an April or September sky—an airiness of effect, no less exhilarating to the spirits

than expanding to the thoughts." Having reached Richmond, the remainder of the journey, by land, lies through a rich and picturesque country. Mr. Jesse, in his "Summer's Day," recommends a drive to Hampton Court, by way of Kensington and Hammersmith, by Marble Hill, Twickenham, Teddington, Bushy Park, and so to the noble palace gates. But undoubtedly the most expeditious, and, on some accounts, (including quiet) the most agreeable route, is that by the South-Western Railway, from the Waterloo Station. Half an hour takes the visitor down to East Molesey, on the Surrey side of the river, which is only separated from the Palace of Hampton Court by the clumsy looking wooden bridge (of which we give an engraving), and for passing over which a penny toll is demanded of foot passengers. Below this bridge, on the Surrey side, is the junction of the Mole with the Thames, and a little lower is Ditton, a favourite resort of anglers. Then, by the way, is a *deep*, called the water-gallery, 200 yards long, being from the summer-house of the palace to the eastward. It contains barbel, roach, dace, and many fine perch, and may be fished from the shore or in a punt. The river assumes a new character here, after we have passed the deep just mentioned, from being so intersected with numerous islands that it forms narrow channels only. The verdure is exquisite, the tall elms still continue to rear their lofty heads, and verify Mr. Symond's observation, that "they supply the place of fountains." The palace is a noble pile, but offers more to the eye of an architectural draftsman than to that of the amateur landscape painter. Nevertheless, our artist, by aid of the river and its banks, has presented the palace in a very picturesque point of view, ill adapted as are the long and almost unbroken lines of its south and east fronts to aid this effect. It is true that from this point the parts of Wolsey's palace which still remain are not the most prominent, and we must be content with Wren's less picturesque fronts, built for William III., with the gable of the noble hall of a better period rising above the attic line; but the bright river, the old picturesque tow-boat, and the private garden terraces, "in which Watteau would have rejoiced, as backgrounds for his satin and brocaded dames," all make up a very charming scene.

But to explain what William III. and Wren have to do with the palace of Wolsey's founding, a few words historically, are requisite, which we cannot find better given than in Weale's "London and its Vicinity," from which we quote the following:—

A considerable portion of the present edifice was first raised by Cardinal Wolsey in the reign of Henry VIII., as a residence for himself; but the king becoming jealous of its growing magnificence, the cardinal presented it to the sovereign in the year 1526, and was in turn rewarded by the gift of the palace at Richmond, and with enormous manorial rights in the counties of Surrey and Middlesex. On the accession of William III. to the throne, he added many parts to the building, and completed it as it now exists. At present there are three spacious quadrangles contained within the palace, and a multitude of apartments. Many suites of rooms are occupied by private persons, by permission of the Crown, being mostly the reduced relatives of aristocratic families. The state apartments, and many other rooms, have been converted into a kind of public picture-gallery, which, with the beautiful gardens, have become a favourite resort of the industrious classes in the summer season and on holidays.

The total number of pictures contained in the series of rooms to which the public have access, is 1027; comprising the ever-famous cartoons of Raffaele, some other excellent pictures, a great number of portraits, and also a great number of utterly worthless pictures; the whole being the gathering from various royal residences, for which they were no longer adapted. It is to be regretted that the greater number of the insignificant part bear the names of renowned ancient masters, as they have no analogy in subject or execution to their immortal works, and are calculated not only to mislead the uninstructed, but to throw ridicule upon the knowledge of art in England in the eyes of foreigners who visit the palace.

The grand staircase is painted by Verrio: after ascending it, the first apartment is called the Guard Chamber. On the walls are a great number of military implements, ornamentally disposed, and some pictures. The succeeding room, called the King's First Presence Chamber, contains a number of female portraits, by Sir Godfrey Kneller. In King William's bedroom is the well-known series commonly called King Charles the Second's Beauties, being the portraits of the most beautiful ladies of his court; they are principally from the hand of Sir Peter Lely, and are nineteen in number. After passing through a great many fine apartments filled with pictures, the visitor arrives in a splendid room, constructed expressly to contain the celebrated cartoons of Raffaele. As by the unanimous consent of all the connoisseurs and artists who have ever lived, they are accounted the grandest and most important emanations of the human mind produced in the art of painting, they compensate amply for the disappointment experienced on viewing the multitude of pictures in the other rooms. Fortunately they stand alone in the apartment. Although the light is not the most favourable, and they are hung too high above the sight, the spectator, if at all versed in the higher qualities of fine art, will be gratified to the utmost extent. The subjects are—

The Death of Ananias.
Elymas the Sorcerer struck with Blind-
ness.
The Miraculous Draught of Fishes.

Healing the Lame at the Beautiful Gate.
Paul and Barnabas at Lystra.
Paul Preaching at Athens.
Christ's Charge to Peter.

In a succeeding room are nine pictures, painted in distemper, of the

Triumph of Julius Caesar, by Andrea Mantegna, for the Duke of Mantua; they were brought to England in the reign of Charles I., who purchased the entire collection for 80,000*l*. This series is much decayed, but is a magnificent work, and the most important existing of the master.

After viewing the pictures, the most interesting object is the great hall 106 feet in length, 40 in width, and 60 in height. The timber roof, richly carved and gilt, is a remarkable monument of this kind of construction. The hall was begun to be erected by Cardinal Wolsey, but was completed by Henry VIII. Beyond the hall is another large chamber of similar style and epoch, called the Withdrawing Room. The tapestry, stained glass, and other decorations of these two halls are fully and well described in the catalogue sold in the palace.

The gardens are laid out in the formal French style of Le Nôtre, and being well kept, afford a very agreeable promenade. Immediately adjacent is another royal demesne of great extent, called Bushy Park, the principal feature of which is a broad avenue of horse-chestnut and lime trees, upwards of a mile in length.

Of the pictures and other artistic matters, we shall say further in a future article.

FILIA DOLOROSA.

BUT a short time has elapsed since the last surviving child of Louis XVI. of France expired in exile. Disappointing at her birth the hopes of her parents and of France, who wished for a Dauphin, subjected at the tenderest age to the fury of the worst of revolutions,—afterwards to all the vicissitudes of exile,—her life offers the picture of more unhappiness than is usually the lot of those who are "born to misfortune." How true of her is the motto—"Sorte funesta clara;" yet how bravely she bore her fate. Resigned, dignified, religious—she died in peace after spending her life in storms, which beings less frail had been unable to weather. She has left in many lands a name which will long be remembered as intimately connected with all that is charitable, good, and kind in human nature. Marie Therèse Chorbette, was the eldest child of Marie Antoinette, whose first years of wedded life gave no promise of progeny to the royal house of France. Her birth almost cost the Queen her life. The heat caused by a crowd, always present on such occasions in France; the disappointment experienced by the Queen on finding that her child was not a son, produced one of those nervous shocks which are so often fatal to women in her situation. Insensibility only ceased after the extreme remedy was resorted to of bleeding at the foot. The education of this child was the source of no small unpopularity to the Queen; by the appointment of the upstart Duchess de Polignac to be governess of the children of France, she incurred the displeasure of the noblesse, which preceded by a little only the hatred of the people; a sentiment which, ere long, produced the most fearful results to all who could boast the name of Bourbon. In the history of the great French revolution, you may trace the history of Marie Therèse, or Madame Royale, as she was then called. Her first acquaintance with the world around her, was when her father escorted from his first interview with the National Assembly, was cheered by the enthusiastic deputies, who also saluted the Queen and her children as they stood on the balcony of the palace. The next scene shows the unfortunate princess snatched from her bed at dead of night, whilst the Parisian mob invaded the precincts of Versailles, and carried in the coverlet of her bed to the chamber of the King. At the Tuileries, endeavouring to contribute by all means in her power to the happiness of her parents—a party to their flight, and witness of their arrest at Varennes—she exhibited throughout the most trying scenes, the utmost firmness of mind. After the arrest of Louis XVI. at Varennes, a night spent in agony in the shop of a paltry grocer, had changed the beautiful tresses of Marie Antoinette, from blonde to grey. "When Madame Royale perceived that startling evidence of her mother's sufferings, her mind took in the immensity of the peril, and she was enabled to comprehend to their full extent, her unfortunate parent's feelings. A dark sorrow opened upon her, and shadowed forth the future in gloom. The same internal process, which had, in the space of a few hours, scattered the fair head of Marie Antoinette with untimely snows, extended its influence to her daughter's mind, and forced it into precocious maturity." From that moment her youth appeared to have departed from her. The full measure of the royal family's misfortunes was, however, yet to be filled. They were brought back to Paris. The death of Damiere at the door of her mother's carriage, as it left Varennes, surrounded by an infuriated mob, made the princess faint; but this death was but the foretaste of what was reserved for most of the royal party. During the storming of the Tuileries, whilst the unfortunate Queen remained, as it were, pilloried for hours, by the vilest rabble of both sexes, Madame Royale clung, pale and panting, to the side of her mother. She drew her own conclusions; when at the close of the terrible day, the Queen, in answer to a member of the Assembly, who questioned her, was forced to say; "the King and myself, sir, are convinced of the natural goodness of the people." The look of the poor child when she heard this answer, struck the rude legislator, who asked Marie Antoinette her age. "Sir, she is old enough to feel but too profoundly the dreadful horror of such scenes as she has witnessed to-day," was the royal answer, upon which Marie Therèse fell silently weeping on her mother's breast. Soon, however, occasions for fortitude became more frequent as the monarchy tottered to its fall. The unfortunate royal

children could not make their appearance at the palace windows without hearing cries against their mother, and seeing her portraits labelled "*Messalina publicly exposed*;" for pictures of unparalleled shamelessness, and songs as bad as the pictures, were openly sold in front of the windows of the palace. The children, too, were present at the National Assembly on the celebrated occasion when the King was induced to come amongst them for that protection which was promised to him, but which ended in the death of all those present except Marie Therèse. The scene must have been an awful one. There the royal family sat; the Dauphin in a condition of fearful exhaustion and alarm. But Madame Royale shook off her own fears in order the better to banish his, and called up smiles on her face that she might summon an expression of courage into that of her young brother. She wiped his brow, kissed his cheek, turned away her head to weep, and the next moment looked at him smilingly again. These unfortunates remained thus for seventeen hours in the hall of the Assembly whilst the people sacked the palace, and committed the worst excesses. Madame Royale was often heard to relate, that she seemed to have passed a long life on that day. It made her ever after old, and it gave her the gravity of years ere years themselves had come. The solemnity of demeanour, which never after left her, was a necessary consequence of the deeds and the memories of this most fatal day. The family, after the pillage of the Tuileries, were in utter destitution, and it was in borrowed clothes that the King and Queen, with Madame Royale and the Dauphin, were present a second day in the hall of the Assembly to listen to menaces from the public, and to the shrieks of those who were massacred near them. Their confinement in the Temple must have been the most trying of all the scenes through which the unfortunate Madame Royale had to pass. Separated successively from her father, mother, aunt, and brother, she lived on in spite of ill treatment and the murder of her relatives. The story of their sentences and execution is too well known to need repetition; nor is it necessary to relate the harrowing details of the poor Dauphin's destruction. Madame Royale escaped with life. She had heard street-criers proclaim by order the sale of papers, in which were chronicled the sentence and approaching execution of her father;—she knew the fate that awaited him at their separation. She fainted as they parted, and was snatched from her remaining parent whilst still in a lifeless state. She suffered from a malady in one of her feet, but a doctor who attended her narrowly escaped death for showing too much anxiety for her recovery. The parting of mother and children was terrific. Madame Royale and the Queen's sister helped Marie Antoinette for an hour, in a supreme yet vain effort to preserve the Dauphin. Yet when mother and daughter parted, Madame Royale shed no tear nor uttered a single word, struck dumb as she was by excessive terror, that she was looking on her mother for the last time. Over the separation from her aunt, poor Marie Therèse wept throughout the first night that she was left alone to solitude, to darkness, and to tears. The Dauphin, her brother, was in the meanwhile enduring tortures which were slowly putting an end to his existence. After his death she enjoyed some relaxations from the pains of prisons; books were given to her to read, and she was allowed to ascend to the tower of the Temple for air and exercise. Negotiations were entered into for her release, and ultimately an exchange of prisoners was made, by which she became free.

It was a strange coincidence that one of the persons exchanged for her was a man named Drouet, who had been mainly instrumental in the arrest of her father at Varennes, during his unfortunate flight. It was on the 19th of December, 1795, the birthday of Madame Royale, that she was set free. She left the Temple in company with Benezec, the Minister of the Interior, and a carriage in waiting drove her out of Paris to the frontiers of Austria.

The fate of the unfortunate princess was, however, hardly more endurable morally at Vienna, than it had been physically at the Temple. The Archduke Charles of Austria, incited by the other members of his family, who saw in an alliance with a Bourbon princess a source of future aggrandisement, urged upon Madame Royale a suit which was the more disagreeable to her as, besides her being betrothed by her father to the Duke of Angoulême, the Austrian prince's person had no attraction for her. Intrigue spread its mesh round the princess, and such restraint was used on her personal movements, that it extorted from her the remark that she seemed only to have exchanged one captivity for another. She remained inflexible to all the insinuation, flattery, and violence of the Austrian court, and was only rescued from her honorary captivity through the instrumentality of the Emperor Paul of Russia. In obedience to a request of Louis XVIII., the Emperor Paul had given that fugitive king a residence at Mittau, the capital of Courland. There the princess was united in 1799 with the Duke of Angoulême. The affianced pair were calmly happy; there had been no wooing, but the "contracting parties" possessing a regard for each other, submitted passively to events over which they really had no control. Theirs was a political marriage. The daily routine of their life at Mittau, if not happy, was not the reverse. It was passed in thankful enjoyment of what the present brought, and hopefulness for what the future might afford;—the chief occupation of the Duchess being to look after the wants of the poor of Mittau. A year and a half, thus passed in quiet, was destined to be followed by a renewal of the miseries always attending political exile. The Emperor Paul having become a fanatic admirer of Napoleon, expelled the Bourbons from their asylum. No reasons were assigned

for this step, which was taken suddenly, and fell like a thunderbolt upon this poor little court of Mittau; nor was time given for preparation to make a distant journey; but in forty-eight hours the whole of the party were forced to depart in the depth of a northern winter. The road on the first day was almost impassable. The miseries of the second day were still greater; they had to contend against the coldness, not merely of the weather, but of the people on the way, who looked on them with unfavourable eyes in consequence of the Emperor's orders for their sudden expulsion. But the climax was attained on the third day, when the utmost rigour of a Russian winter now surrounded them. The intense cold paralysed them. The howling wind tossed the snow into drifts; the postilions were blinded by it, and the horses terrified. The snow in the air darkened the little light afforded by the dull sky; that on the ground lay a foot thick, and through this the Duchess and the King, with their attendants, were compelled to walk during a portion of this wretched day. The Duchess led the King along this route, toiling through the snow, mud, and ice; and the Abbé Edgeworth did his best to support the Duchess. It was not till the fifth day that the fugitives reached Memel, where they had not long remained when the King of Prussia assigned them Warsaw as a place of residence. But even there they were not safe; the power of Bonaparte was on the increase, and he prevailed on Prussia, as he had before prevailed on Russia, to expel the royal fugitives from his territory. England was the only refuge left, and thither, after a sort stay for the second time in the capital of Courland, the Duchess of Angoulême wended her weary way. Hers had, indeed, been a weary exile! Her last stay at Mittau was calculated, however, to bring to light all the qualities which her heart contained. The wounded French prisoners were tended there by her with unflinching zeal and care. For two years of the exiles' stay in England they remained at Gosfield Hall, a seat placed at their disposal by the Marquis of Buckinghamshire. There the Duchess superintended the household, as she subsequently did, likewise, at Hartwell Hall, which Louis XVIII. now hired for his habitation. There her charity was munificent, and exercised with discretion. Occasional visits were made to the capital for the purpose of pious pilgrimages to the little chapel in King-street, Portman-square, which had been founded by French exiles in the early part of the Revolution. The marriage of Napoleon with an Austrian princess cast a fitful shadow upon the quiet scene; but joy succeeded when the fall of Bonaparte was announced. Here there was rank, fortune, freedom, all at once placed within the grasp of her who from her childhood had known nought but imprisonment, poverty, and constraint. But this, after all, was but a gleam of fortune. Bonaparte returned from Elba, and the Bourbons were again seen flying from the wrath of the lately deposed and now victorious Emperor. On this occasion, however, the conduct of the Duchess was more courageous and proud than that of any of her family. When the Emperor landed from Elba, she was at Bordeaux, celebrating the anniversary of the 12th of March, when Louis XVIII. was proclaimed. She no sooner heard the news than she issued a proclamation, jumped on horseback, marshalled the battalions of the National Guards, and exerted herself to counteract, by the means in her power, the fatal influence of Napoleon's name upon the fidelity of the troops of the line. When General Clauzel appeared to oppose her, she formed a hollow square, in the midst of which she placed herself, and this act of hardihood and courage had so far effect that it saved her adherents from certain destruction by the cannon of the Imperialist general. Napoleon said, when the Duchess sailed to her second exile, that she was the only true man in her family. Her stay in England was not of long duration, however, for the Allies had made short work of Napoleon, who lost the empire at the battle of Waterloo. The life of the Duchess of Angoulême, during the Restoration and under Charles X., was calm and peaceful, and disturbed only by the attempt of certain impostors claiming to bear the title of Louis XVII. by right of birth, but these were dull episodes enough. The daily acts of charity which the Duchess performed were the chief pleasure of her existence. It cannot be said, however, that she was liberal in politics or in her religious creed, for though not much meddling in politics, she never counselled aught that did not smack of prerogative, and she showed herself slow to avenge the wrongs of the Protestants of Nismes, who had been partially massacred and persecuted by the Catholics of Trestailons.

It might have been thought, then, that the remainder of a life of which the greater part had been so stormy, would be permitted to pass without any further struggle. It was not so. The revolution of July came on, and the Duchess of Angoulême again fled the country of her birth—this time never to return. She died in exile the other day, at Frohsdorf, on the 18th of October, having lived seventy-four years.

THE MOTHER'S HOPE.—PAINTED BY J. SANT.

THIS very beautiful work, which we engrave on the front page, was the companion-picture to that of "Music" by the same artist, in the late Exhibition at the British Institution, and of which we gave an engraving in No. 6. The composition is very pretty,—ably realising the lines

"Thou at thy mother's breast, and she in thee
Calls back the lovely April of her prime!"



THE MOUNTAINERS, BY F. UNDERHILL.

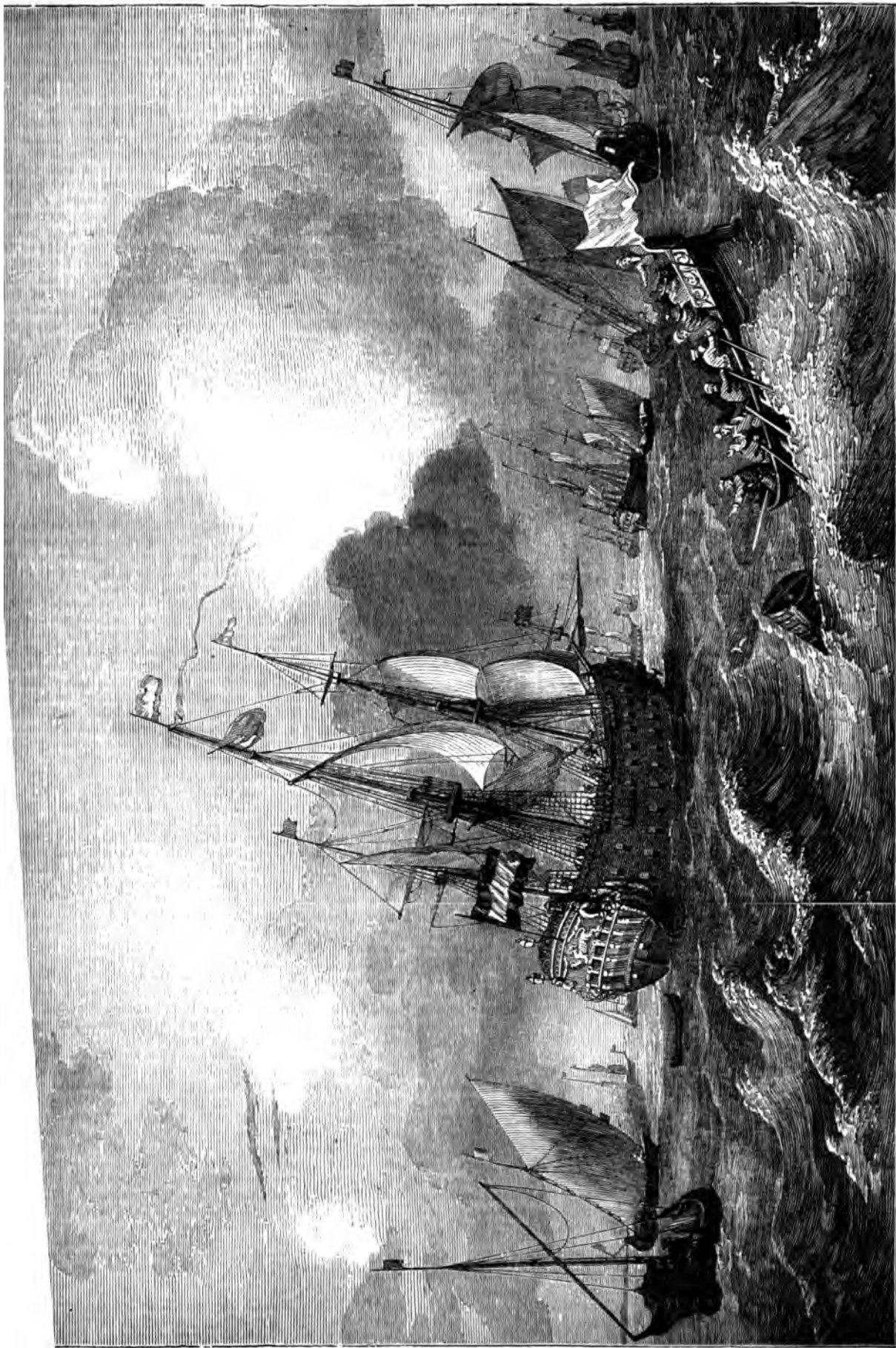
THIS very pretty composition is exhibited at the "National Institution of the Fine Arts," in Pall Mall; and we have great pleasure, by permission of the artist, in presenting our readers with an Engraving of it.

LUDOLPHI BACKHUYSEN.

THIS eminent master was born at Embden in 1631. He received his earliest instructions from Albert Van Everdingen; but acquired his principal knowledge by frequenting the painting rooms of different masters, and observing their various methods of touching and colouring. One of these was Henry Dubbels, whose understanding in his art was not only extensive, but he was remarkably communicative of instruction to others, so that from him Backhuysen obtained more benefit than from all the painters of his time. He had not practised long when he became the object of general admiration; so that even his drawings were sought after, and several of them were bought up at 100 florins each. While painting, Backhuysen would not suffer his most intimate friends to have access to him, lest his fancy might be disturbed, or the ideas he had formed be interrupted. His favourite subjects were sea pieces; and he studied nature attentively in all her forms; in gales, calms, storms, clouds, rocks, skies, lights, and shadows. He expressed every subject with so sweet a pencil, and with such transparency and lustre, as placed him above all the artists of his time in that style, except the younger Vandervelde. It was the custom of Backhuysen, whenever he could procure resolute mariners, to go out to sea in a storm, in order to store his mind with grand images, copied from nature, of such scenes as would have filled any other head and heart with terror; and the moment he landed he impatiently ran to his palette, to secure those impressions, of which the traces might, by delay, be obliterated. By his perfect knowledge of the chiar-oscuro, he gave uncommon force and beauty to his objects; he observed strictly the rules

of perspective, in the distances of his vessels, the receding of the grounds on the shores, and the different buildings which he described in the seaports. His works may easily be distinguished by the freedom and neatness of his touch; the clearness, and natural agitation or quiescence of the water; by a peculiar tint in his clouds and skies; and also by the exact proportions of his ships, and the gracefulness of their positions. For the Burgomasters of Amsterdam he painted a large picture, with a multitude of vessels, and a view of the city at a distance, for which they gave him thirteen hundred guilders, and a considerable present besides. This picture was afterwards presented to the King of France, who placed it in the Louvre. No painter was ever more honoured by the visits of royal personages than Backhuysen: the King of Prussia was one of the number; and the Czar Peter the Great took delight to see him paint, and often endeavoured to draw after vessels which he had designed. He was remarkably assiduous, and yet it seems astonishing to consider the number of pictures which he finished, and the exquisite manner in which they were painted. He had a taste for poetry, and at his leisure hours taught writing in the families of eminent merchants. At the age of seventy-one, he engraved a series of views of the seaport on the river Y. He died in 1709.

There are two pictures by this master in the National Gallery,—the one which we engrave being that bequeathed to the nation by Charles L. Bredel, Esq., in 1851. It represents a frigate with a yacht saluting, a boat, and many small vessels, in a breeze off the Dutch coast.



A BREEZE AT SEA.—BACKHUYSEN. IN THE NATIONAL GALLERY.

RECREATIONS IN GEOLOGY.

NO. III.—THE PASSAGE OF LIFE THROUGH MANY FORMS.

SILENT and slow was the march of the ages in those dark eras of lifelessness when the plutonic rocks were formed, and the sulphureous seas of fluid rock heaved into huge billows of burning lava, or wreathed into whirlpools by repeated hissings of the fire below, or subsided into flat and solid plains as the heat radiated from them. Death and Silence reigned together, and Life was waiting to be born.

Strange contrast that of the age of fire with this age of life—this life that stares out upon us in a thousand forms, as if each atom of the older rocks had been quickened into being. Here are volcanic basins belching forth their floods of flame, then mighty seas, surging and seething, breaking down the rocky ramparts and pouring the first bed of the gneiss upon the heated bottoms of the waters; and then, after a few throes, life starts into its plenitude of power—life and its companion attributes of sense and will—taking shape at first in humble forms, and climbing up through successive ages of progression to the highest orders of being, of which man is the last completed creature, the type and emblem of the whole, combining all their physical and mental attributes in himself,—the microcosm of vitality, the glory of the world.

It is curious to trace in the records which geology offers us, how this life has manifested itself in successive phases, from its first simple birth to its present perfection and rounded completeness; the organic and the inorganic world marching together, the one constantly adapting itself to the improved condition of the other. Picturing the world as it stood in the Silurian epoch, when the great beds of clay were being converted into slate under the influence of intense heat, the wildness and rugged barrenness of the scene shuts out all thought of delicate moving forms; and if we find life at all, we are prepared to find it in the simplest garb and fitted for a region of earthquake and sterility. It is on the ramparts of Snowdon that this twilight of existence breaks upon us, and the first creatures unfold to us the story of their birth. Humble creatures they are—mere coral insects or simple mollusca—with no traces of complexity of form, and suited to a world which could supply the fewest of animal wants.

The lowest animals are those destitute of a back-bone; and the first which occur are of this humble type. Zoophyta and Brachiopodi are the chief of these early creations, which seem to have preceded vegetation, and to have aided by the economy of their own growth the formation of many beds of the Silurian strata. These occur abundantly on the continents of Asia and Europe; and everywhere we find them lying on the primitive rocks. The coral insects which form the bulk of these early races, play an important part in the present economy of the globe; and to them we owe the vast limestone reefs which peer up above the ocean, and form the bases of so many new lands. The prodigious extent of the combined and unintermitting labours of these little world-architects, says Professor Ansted, must be witnessed in order to be adequately conceived or described. They have built up four hundred miles of barrier reef on the shores of New Caledonia; and on the north-east coast of Australia their labours extend for one thousand miles in length, and these reefs average perhaps a quarter of a mile in breadth, and one hundred and fifty feet in depth: and they have been built amidst the waves of the ocean, and in defiance of the fiercest storms. These creatures were so minute that the slate found at Berlin, in Bohemia, which consists almost entirely of their shells, contains, according to Ehrenberg, 41,000,000,000 of animals in each cubic inch, and as a cubic inch weighs 220 grains, it follows that 187,000,000 of these shells must go to a grain, each of which would consequently weigh the 187,000,000th part of a grain. Yet each of these creatures has its own independent and complete structure; its own pains and pleasures; its choice of food; its faculty of self-preservation; and withal that wondrous faculty of secreting from the ocean in which it dwells the calcareous particles which hereafter are to form the foundations of great continents, or the pointed peaks of many chains of hills.

The ocean of this period presented greater differences of depth than at the present day; it was peopled with polypes, trilobites, and others of the same class, among which were the crinoids, or stone-flowers, more beautiful, perhaps, than the sea-anemonies of our own coast, even where these latter are seen in all their beauty, and with their tendrils and fibres widely extended and brilliantly coloured. One of the most interesting of the remains in these Silurian rocks is the annelide, or fossil earthworm, its body formed of a hundred naked rings, protected by a coat formed of agglutinated sand. Many of these are seen in the building-stone of Llanpeter, in North Wales, though in these ancient rocks the traces of the worms are more frequent than their fossilised bodies.

As we go higher in the progress of formation we encounter forms more complex, and life stands upon a higher platform. In the rocks of Ludlow, Wenlock, and Llandeilo, we find organic remains innumerable, and among them the first vertebrata, or creatures having a spinal column and symmetrical outline. These, however, are but one step above the invertebrate animals of the preceding ages; they are merely the outlines which succeeding ages will have to fill up. Of true vertebrated fishes there are in the two groups of Silurian rocks 24 distinct species; of crustaceans, or crab-like creatures, 37; of annelids, or those fashioned

in the manner of the earth-worm, 6; of mollusca, or those with shells, 126: besides many others resembling the star-fishes and the One of the most common is the *Lituitis cornuarietis*, which diameter of nearly two inches; and the chain coral, *Cateniporoides*, a species which sometimes forms spherical masses more foot in diameter. But the characteristic fossils are the three creatures called trilobites, which consist of an oblong body, transversely into three principal parts, and longitudinally into lobes. These have long been known under the name of Dudley or locusts, from the district where they abound, and no reveal the stone-book have puzzled naturalists more than these. Though supposed to be insects, the trilobites are now known to be true ceans, devoid of limbs and locomotive power, living by suction adhering in vast numbers to rocks and sea-weeds, and hence those conglomerations of individuals which are so remarkable rocks of this series. All these, however, have long perished, only creature now existing which bears any resemblance to them *Bopyrus*, a small parasitic animal which attaches itself to prawns causes a large swelling on their bodies. One remarkable fact history of this trilobite is the compound structure of the eye consists of about 400 spherical lenses, fixed in separate compartments on the surface of a cornea projecting conically upwards. The



EYE OF THE TRILOBITE.

formed of many lenses, reveals a fact of even higher interest than of its own curious structure. We are accustomed to such mechanism in the modern aspects of the insect and crustacean worlds: the house-fly has 14,000 of these separate lenses; that of the dragon 25,000; the butterfly 35,000; but this eye of the trilobite informs that it was formed for action under the same laws of light which prevail upon the earth; and that the waters in whose depths this creature lived and died were transparent enough for the passage of light organs of vision, the nature of which, says Dr. Buckland, is disclosed by the state of perfection in which they are preserved.

In the old red sandstone, which stands immediately above the Silurian, we meet with new and strange developments. The sea grown more fit for the support of animal life, and being extended covered with seas, life worked out its will in the creation of creatures of the deep. Small at first, the new species gradually increased in size as circumstances favoured their development; and fishes most curious conformation were succeeded by gigantic saur creatures half fish, half lizard,—endowed with striking instincts extraordinary powers. Nearly all the fishes of this period possessed heterocercal or unsymmetrical tails, resembling, to a considerable extent, the tails of the existing sharks. Their bodies were of variety of shape, except that which we are accustomed to regard as fish-like. Here is one called *Cephalaspis*, in which the head is equal to one-third of the entire body, and which derives its name from its close resemblance of its huge head to a shield. Its body is plate impenetrable armour; and the edge of its shield is as sharp as a javelin. In the dark deep it lives, watching with its close-set eyes creatures that play around it, until an unfortunate victim coming within its reach tempts it to an encounter, and falls an easy prey to its strength. Another of these, though removed a stage further in the progress of development, is the *Occosteus*, whose head, long shield shape, appears like the round end of an enormous club, long vertebrated tail, which gives it the general appearance of a kite. The fragments of this creature are usually of a brilliant colour, and its entire frame is seen to be covered with bony tubercles of a hard bone. The teeth, instead of being fixed in the jaw, are integral portions of the jaw, like the teeth of a comb; as the mouth is supposed to have been placed vertically, instead of otherwise invariably the case in the vertebrata—horizontally. Another, too, is the *Pterichthys*, or winged-fish, its body covered with plate powerful arms articulated at the shoulders, a head lost in the trunk and a long angular tail. The restored form of this creature bears a rough resemblance to a headless man with his arms extended, the trunk narrowing and terminating in one leg, which tapers down to a point. The old red sandstone contains about three hundred species of fishes, a multitude of a back-bone, and more than seventy of vertebrated creatures which are fishes chiefly formed after the quaint fashion of those described.

There are still great seas upon the earth, and water plays its part in helping out the progress of creation. During the latter part of the old red sandstone period, the earth seems to have experienced tremendous floods and volcanic outbreaks; and the mass of life which existed in the waters was annihilated for ever, leaving its fragments only to tell the story of its former life-time. A few species of fish, obviously capable of enduring great vicissitudes, survived submarine earthquakes and volcanic eruptions; but the great

and the trilobites were engulfed, and passed for ever from the theatre of their strange existence. During the formation of the strata in which the remains of these creatures lie entombed, long periods of time must have elapsed, for these rocks are ten thousand feet thick; and the only dry land which appeared above the waters consisted of bald pinnacles and island blocks of granite; all lifeless, calm in the calmness of death, strong and bare, and without one blade of grass to break their terrible sterility.

Vegetation, which had started in the Silurian epoch, with the production of a few sea-weeds, and some humble ferns, found improved conditions for its growth as time rolled on; and in the succeeding age of the carboniferous rocks, the whole earth acquired a luxuriance exceeding that of the tropics in the present day, and new inducements were offered to animal life to push still higher in its developments, and to make fresh efforts at new varieties of being. Little encrinurites, or lily-shaped animals are here, forming, from their own remains only, immense piles of limestone rock. Here are also many shell-fishes, and among them the *Bellerophon costatus*, closely resembling the paper nautilus of the Mediterranean, a creature which fancy and fable have both adopted as the object of some of their choicest creations. We find in these rocks also many teeth of sharks and teeth of gigantic lizard fishes, and as the new red sandstone is deposited over these in waters saturated with salt and sulphate of lime, the first reptiles appear, as if the vertebral outline of the fish was being slowly filled up and prepared for that development of the limbs which forms a characteristic of the mammals, which gives the ox his strength, the antelope his fleetness, and the hands of man their delicacy of touch and sensible precision of movement.

Here we meet with the *Labyrinthodon*, a species of frog as large



THE LABYRINTHODON.

as a full-grown sheep; the *Thecodontosaurus*, the *Rhynchosaurus*, and the monster *Plesiosaurus*. This last reptile combines the features of the serpent, the crocodile, and the fish. According to Professor Ansted, it is from sixteen to twenty feet long, with a small wedge-shaped crocodilian head, a long arched serpent-like neck, a short compact body, provided with four large and powerful paddles, almost developed into hands; and covered from head to tail with a black slimy skin. "Imagine this creature slowly emerging from the muddy banks, and half-wading, half-creeping along, making its way to the nearest water. Arrived at the water, we can understand from its structure that it was likely to exhibit greater energy. Unlike the crocodile tribe, however, in all its proportions, it must have been equally dissimilar in its habit. Perhaps instead of concealing itself in mud, or among the rushes, it would swim at once boldly and directly to the attack. Its enormous neck stretched out to the full length, and its tail acting as a rudder, the frequent and powerful strokes of its four large paddles would at once give it an impulse, sending it through the water at a rapid rate. When within reach of its prey, it depresses its body in the water, draws back its long neck and then strikes with a force which few creatures could resist. Even the sharks themselves fell a prey to this powerful and rapacious monster." A creature of equally curious structure was the *Pterodactyle*, a flying reptile, whose remains for a long time puzzled naturalists, and gave rise to the most diverse opinions as to its conformation. This creature had the head of a bird, and the parts of its fore extremities, which correspond to the little fingers of man, were wondrously elongated, and covered with a leathery membrane which extended to the hind toes, thus enabling it to pursue its prey in the air after the fashion of a gigantic bat. Dr. Buckland is of opinion that it could not only fly; but that, like the vampire bat, it had the power of swimming. Thus, like Milton's vend, all qualified for all services and all elements, the pterodactyle was the fit companion for the kindred reptiles that swarmed in the seas, or crawled on the shores of a turbulent planet:—

"The fiend
O'er bog, or steep, through strait, rough, dense, or rare,
With head, hands, wings, or feet pursues his way,
And swims, or sinks, or wades, or creeps, or flies."

With these were associated the great reptile known as the *Megalosaurus*, and many species of ichthyosaurs, thus completing the character of the animal kingdom of that period, when these gigantic reptiles swept the ocean, the air, and the land, and fed on the lower forms of animal life, which abounded in the swamps and forests around them.

Around the inland lakes and luxuriant marshes of the new red

sandstone period, Nature found materials for creatures of a higher growth than the monsters we have just described, and forthwith the aboriginal type—the vertebral column and its appendages—breaks with fresh vigour into new forms, and with a wider range of elements at her command, Nature is determined no longer to have masses of organised and living matter, and so she creates forms of beauty, and grafts upon the old stock of reptile existence, a fruit of nobler pretensions. The monster of the deep loses his slimy covering; no longer "prone, extended on the flood;" his huge paddles become slender legs and feathery wings, and the first birds appear; creatures too of immense size, whose stride measures five feet at an ordinary pace, and bearing some resemblance to that "fearfully great bird," the *Dinornis*, whose bones have been recently discovered in New Zealand, and to which the existing ostrich is a pigmy in comparison. If the fable held good, we might conceive the *roukk* of Eastern story, which carries an elephant with ease in its great hooked bill, or in the clutch of its enormous claws; to be a revival of these creatures in an ideal form, but that they were not birds of prey, but peaceful things, wading like the existing stilt-plover or the flamingo, on their stilted legs into the thick aludge of the marshes to feed on soft bodies of molluscs and various kinds of worms.

These later creatures carry us from the close of the new red sandstone to that of the oolitic series, to which, indeed, the plesiosaurus and other of the great reptiles most truly belong. Geologists have, perhaps, given too great prominence to the few diversities in colour and other accidental characteristics, which are regarded as the boundary lines between these groups of rocks, which have so many other traits in common. Certain it is that reptiles flourished in almost inconceivable profusion during this age of the oolite; and in the beds of lias which were then laid down, their remains are entombed in countless variety and numbers.

Here, however, we encounter another step in the upward path of organic development, and the first forms of the mammal appear. It is a mammal, however, of the lowest order, the first link in the series as we pass upwards, and marks the humble commencement of the subsequent extensive and magnificent series of animals which suckle their young, and of which man is a member, though the head and chief. The first indication of this creature was afforded by the discovery of a jawbone which Cuvier pronounced to belong to some marsupial animal allied to the existing kangaroo, in which the distinctive feature is the possession of a pouch in which the young are carried, and in which their birth, imperfect in the first instance, is at last completed. The creature has been called *Phascolotherium Bucklandii*, from its affinity to the wombat of New South Wales.

(To be continued.)

THE WOODLAND STREAM.

OUR Engraving on the next page is taken from a very beautiful water-colour picture exhibited at the Royal Academy, by Mr. S. Reade. The following beautiful lines are by Dr. C. Mackay, and form one of a series of new poetical versions of English Melodies published in the "Illustrated London News":—

AIR, "THE STREAMLET THAT FLOW'D ROUND HER COT."

I.

How oft along thy woodland way,
Fair streamlet of the hills,
We've listened to the murmuring voice
Of all thy gushing rills;
And gazing on thy lucid breast,
Beneath thy groves of pine,
Have wish'd the current of our joys
To flow as clear as thine.

II.

We saw the verdure on thy brink,
The grass, the fern, the flowers;
We heard the song of happy birds
That sported in thy bowers;
And fondly hoped that round our heads
Such calm delights might twine,
And that the blessings of our hearts
Might be as pure as thine.

III.

And when thy constant ripple showed,
In morn or evening bright,
The glory of the rising sun,
Or moon's serener light,
We prayed that Love on us might bear
With radiance as divine,
And that the lustre of our lives
Might come from Heaven, like thine.



THE WOODLAND STREAM.—S. READE.—ROYAL ACADEMY EXHIBITION.

SSIP ABOUT BUTTERFLIES AND OTHER INSECTS.*

IOUS fact is sometimes revealed to a naturalist watching the transformations of the very common and well known caterpillar of the *Pieris*. When the old skin of the caterpillar bursts, instead of expected chrysalis, a number of little oval cocoons of pale silk appear (fig. 4, J; at K a cocoon is shown magnified). This looked-for event appears most extraordinary till explained. Cocoons contain the chrysalids of a small ichneumon fly (*Microgaster*, fig. 4, L, M), which uses the body of the caterpillar of *Pieris* as a provision magazine for its offspring in the same way that insects use a Cheshire cheese, in which they deposit their eggs, being hatched, feed in the larva, or maggot state, upon the substance by which they thus (through parental instinct) find themselves surrounded. The ichneumon fly, however, of which I speak, does not thus deposit its eggs upon an inanimate substance, but selects the living body of the caterpillar of the common butterfly; and to effect its purpose, it is provided with a natural



Fig. 4.

armed an ovipositor, with which it pierces through the skin of the caterpillar, depositing an egg in each incision. These are soon destroyed by the warmth of the body of the devoted caterpillar, and feed upon the fat internal parts of its body till they are fit to undergo their own change to the chrysalis state; they then spin a cocoon, in which they undergo the change to a small oval dark chrysalis, from which, shortly after, the small, four-winged ichneumon fly issues, to destroy another brood of its victim caterpillar. But many persons formerly considered the small cocoons of the ichneumon to be the eggs of the caterpillar.

SMALL TORTOISESHELL BUTTERFLY.—We have already made mention of this very beautiful British species of the Lepidoptera, which is itself from the state of chrysalis (pupa) about the same time as the common white, or cabbage butterfly—perhaps a little earlier.



Fig. 5.

not so very common, especially in suburban fields and gardens, as the immediate neighbourhood and even streets of our cities. It is found on the sides of roads and ditches, in neglected fields, and in the midst of wild vegetation the plant is to be found upon which it thrives. That is the common stinging nettle. The Latin name of the plant is *Urtica*, and, as the butterfly first spoken of above is the *Pieris brassicae* (of the cabbage), this is named *Vanessa urticae*, or, in other words, the Vanessa of the stinging nettle. In the order Lepidoptera, we have shown, is divided into three groups, diurnal, crepuscular, and nocturnal, distinguished each by its general habits of flight. Each of these groups is again divided into several

genera, or kinds; the different species in each genus, or kind, having strong resemblances, in which they differ all from the other genera, whilst they also have other differences from one another, which are called *specific*, and constitute them as different species of the same genus.

Amongst the diurnal, or butterfly Lepidoptera, there are a great many genera, but the names of every genus is not explicable, nor even significant, as we have said. We have described three species of the genus *Pieris*, those of the cabbage, the rape, and the turnip. We now come to another genus, called *Vanessa*, in which there are several very beautiful species, amongst British butterflies, of which we select this one, the small *Tortoiseshell*, called, scientifically, *Vanessa urticae*, the Vanessa of the stinging nettle. (See fig. 5).

The engraving at O, in fig. 5, represents the caterpillar furnished with branching spines, like thorns, on the back; that at P, the chrysalis, or pupa; and that at Q, the beautiful butterfly in its perfect state, and pretty nearly the size of life. The ground colour of the upper side of the wings is a rich orange-scarlet, finely marked by black and yellow patches, and one clear touch of white towards the point of the fore-wings; the hind-wings have a broad mass of black towards their base, and both front and hind wings are delicately fringed with an edging of cream colour, within which is a border of black, relieved by a row of semicircular marks of blue, which, in fine specimens, are sometimes very brilliant. In this genus the hind-wings are generally indented towards their inner edge, with a broad hollow, or groove, to receive the body. The antennae, or horns, are delicately marked with black and white, and the club at the end is tipped with brown. This butterfly (*Vanessa urticae*) produces a second brood in August, the females of which deposit the eggs that are hatched in the following March. Some of the brood of August do in mild years survive the winter, and appear upon the wing in early spring. That is more common in the Isle of Wight than elsewhere in these islands; but in the South of Europe the Vanessa and other butterflies are often on the wing throughout the winter.

WHITE BUTTERFLIES.—Besides the species of *Pieris*, which we have given above, and of which the first is (with the species of *Vanessa*, the little *Tortoiseshell* just described) amongst the most commonly found in the British Isles, especially in populous places, there are some others of the same genus, and several other white butterflies, which, though distinctly different from these, are often confounded with them.



Fig. 6.

The *Pieris daphniphylla*, called, familiarly, the "Bath White," is only a casual visitor in this country, and when caught here is deemed a prize by collectors. It is common in the South of Europe. The apex of the anterior wings is black, beautifully mottled with white. There is a large black mark about the centre of the wing. The veins, also, appear white. The females, as in our specimen, (fig. 6, A), have two small additional spots near the hinder edge of the fore-wings, which are absent in the males, except on the under side. The hind-wings are entirely white but appear mottled, in consequence of the colouring of the underside showing through; and, in the females, there are sometimes a few marks of black, as shown in our specimen, which is a very fine one. The under side of the wings, as shown at B, in fig. 6, is the same in both sexes, the ground being white, or sometimes yellowish, beautifully marked with dark green. The body is nearly black above, and of an ashy grey underneath.

The caterpillar of this rare species (fig. 6, C), which feeds upon wild mignonette and some cruciferous plants, has never yet been found in this country. (To be continued.)

* Previous Notice in No 6, page 102.

USHER'S STEAM PLOUGH.

THE application of steam to ploughing has hitherto involved a number of physical difficulties, which it is stated in the "Scottish Press," Mr. James Usher, of Edinburgh, has overcome.

This invention consists, first, in mounting a series of ploughs in the same plane around an axis, so that the ploughs shall successively come into action; and, secondly, in applying power to give rotary motion to a series of ploughs or other instruments for tilling the earth, so that the resistance of the earth to the ploughs or instruments as they enter and travel through the earth shall cause the machine to be propelled; thus making the ploughs act in the earth in

the same way as paddle-wheels do in the water, by which the vessel is moved along; and the resistance of the earth being greater than the water, the power obtained is proportionally more.

Fig. 1 shows a side elevation of the steam machinery; fig. 2 is a plan thereof, the steam boiler and engine being removed. In fig. 1 the under edge of the mouldboard and share is formed to a curve struck from the centre of the shaft or axis on which the ploughs are affixed; *a a* indicate the bed-frame or carriage of the machine. The fore carriage wheels (*b b*) are mounted on an axle, which turns in bearings (*c c*) attached to the swivel frame (*p*), which moves on the bolts (*d*) for turning the machine round in a small space. A portion of the swivel frame (*p*) is

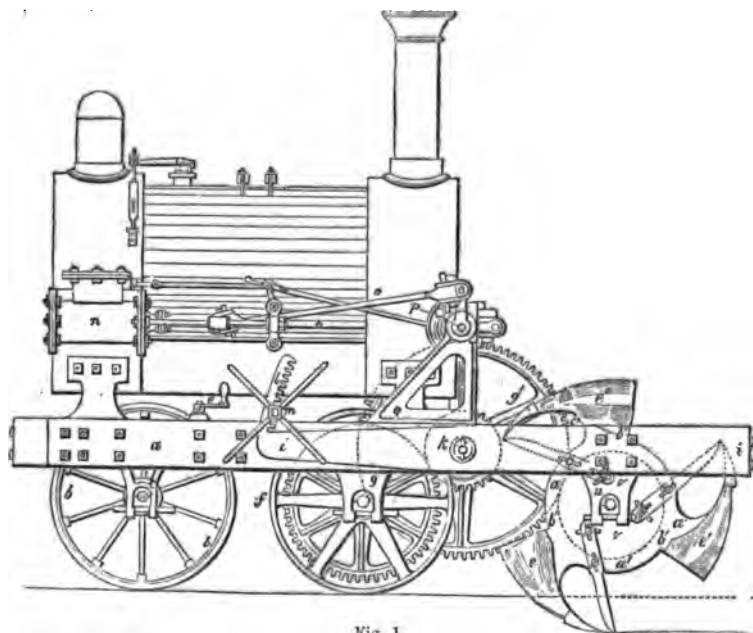


FIG. 1.

toothed, and acted upon by the pinion and winch *e*. The hind part of the carriage is here shown, supported upon the hollow cylinder or roller *f*, composed of two extreme parts, *f'* and *f''*, which are wheels similar to *b b*, the intermediate part (*f*) being by preference removable at pleasure, so as to render these bearing parts suitable to different stages of cultivation. This compound cylinder has its axle supported in the bear-

ings *g*, attached to the lower or to the under side of the carriage frame. The axle of this cylinder carries also at one end the wheel *h*, to be afterwards noticed. A moveable lever frame (*i i i*) is supported on an axle or shaft (*k*), as a fulcrum. The free ends (*r r*) are formed into the toothed segments *l*, and are concentric to *k*; these segments being acted upon by the two toothed pinions and spindles *m*, which elevates or



FIG. 2.

depresses the hind part (*i i*) of the lever frame, and all that it carries, at the pleasure of the conductor. On the carriage thus constructed is placed the locomotive boiler, with its engines (*n n*), the power of which is applied through the medium of connecting rods (*o*) to the crank shaft (*p*), supported on two standards (*g*). On the shaft *p* there is also fixed the spur pinion, indicated by the dotted circle *p'* in fig. 1; and this pinion, by taking into the wheel *r*, mounted on the shaft *k*, gives motion, at the same time, to the pinion *t*, which is carried round on the same shaft (*k*). The pinion *t*, thus actuated, takes into the wheel *h*, before referred to, on the bearing cylinder (*f*); and it is preferred that the point *t* should be applied so as readily to be put into and out of gear with its wheel, though not so shown in the Engraving. By this arrangement of parts a slow progressive

motion is obtained for the whole machine, on the one hand, through the cylinder *f*; and on the other hand a separate rotary motion, at a certain increase of speed, is communicated through the wheel *r* to the pinion *u*, fixed upon the shaft *u*, which last-named shaft has its bearings (*v v*) attached to the moveable frame *i i*. On the shaft *u* are placed a series of plates or projections, fixed at regular distances. Or such plates or projections, with their ploughs, may be placed upon separate shafts, each with its own proper gearing; but it is preferred to place them on one shaft. These plates or projections have affixed to each of them several ploughs, which in revolving penetrate the soil, and by their mould-boards elevate and turn over portions thereof; *a a* are the plates or projections fixed upon the shaft *u*. Each plate (*a'*) has three arms or prolongations (*b, b, b*), which ter-

minate in the radial direction shown; a further prolongation (*d' d'*) is carried obliquely upon each of these arms. Upon the plate and projections thus constructed is affixed the tilling apparatus, which consists, firstly, of the part *d'*, which sets the part of the mould-board or turn-furrow in the common plough; and it is to be fixed by screw bolts or otherwise to the prolongation *d' d'*. To the fore part of this mould-board (*e e*) is affixed a bar of wrought iron, which is also furnished with a lug by which it is attached to the plate by means of screw bolts or otherwise; the bar, thus secured, forms a head or share-bearer, as in many common ploughs. To the fore part of the bar the share is adapted, and fixed by its socket. The mould-board, and also the share, may be varied in form. An adjustable fore-cutter or coulter is affixed in front of each share. It will be seen that not only the ploughs which are set in the same plane around the axis follow each other into action, but that the ploughs of the other sets (which are affixed around the axis in parallel planes) are arranged and come into action so that two plough-shares will not strike the earth at the same instant.

The first public trial of the Steam-plough took place at Bangholm, near Edinburgh, on the 14th of November last, when only four ploughs were used, although the locomotive is adapted for six. The amount of power that may be introduced is, of course, indefinite; and the machine might be made capable of working a series of ploughs to compass any proportionate breadth of land. The plough-share penetrated deeper than is reached by the horse-plough, and the loam was thrown up and pulverised as loosely as if the spade had been at work. The field was level, and the operation was viewed with great interest by the spectators. A second trial took place on the same farm on the 21st November, with similar results. Practical men present expressed their surprise at the superior manner in which the soil was stirred. Another trial took place on Friday, the 27th of February; the plough traversed the field six times with perfect success, and, as on the first occasion at Bangholm, to show its capability to travel over a soft surface, it ploughed a part of the land twice over. This experiment was supplementary to one which had taken place on the previous day, in presence of the committee of the Highland Society.

The cost of the machine is about 300*l.*, and it is adapted to ploughing, thrashing, rolling, and harrowing. It travels 2550 yards per hour, turning over 50 inches in breadth, which is equal to 7 acres in 10 hours, at a daily expense of 17*s.* or 18*s.*, which is about 2*s.* 6*d.* per acre, while it costs 9*s.* or 10*s.* to plough an acre with horses. Although the first machine may not be perfect, still the fact is undeniable that the great obstacle to ploughing by steam has been got over, and with a little improvement the inventor has no doubt of making the machine perfect.

The cost of the steam-plough per day is estimated as follows:—

	s.	d.
12 cwt. coals	6	0
Engineer	3	6
Two labourers	4	0
Horse, two hours	1	6
Interest on machine and repairs	2	6

17 6

Such is a brief account of the invention, achievements, present state and prospects of Mr. Usher's Steam-plough.

SECOND LECTURE BY MR. OWEN JONES ON THE PRINCIPLES OF DECORATIVE ART.

MR. OWEN JONES delivered his second lecture on Thursday, and devoted himself specially to showing the laws which govern the employment of colour in Decorative Art,—illustrating his several propositions by reference to, and explanations of, the woven fabrics of the Marlborough-house collection. Having recapitulated the main points of the first lecture, Mr. Owen Jones requested his hearers to bear in mind the general principles there laid down, as they would be found equally necessary and applicable to colour as he had shown them to be to the form of ornamentation.

As regarded colour generally, he should at once assume and assert that its use was to assist in the development of form, and to distinguish objects, or parts of objects, one from another. It was a proposition the truth of which was established by nature, for it was to be found illustrated in flowers and in the human shape, where form was defined and made perceptible to the eye by colour, which gave them substance. Nor could this be called a new theory, for the ancients had always developed form by colour,—the Egyptians and Greeks first, and after them the inventors of Moorish and Gothic architecture. It was

a known fact that the pillars of Gothic columns had been of old painted with perpendicular lines, the effect of which was to lead the eye and direct the mind of the spectator to the idea of height, which Gothic Art was specially intended to convey. All this effect was now destroyed by the abolition of colour,—a fact which could not sufficiently be deplored. And here he thought was the place to come to an issue with the theory of a man whose talent every one admired, Mr. Ruskin, who contended, falsely the lecturer believed, that colour was not intended to follow form, and asserted that the spots on the leopard or stripes on the zebra had nothing whatever to do with the form of the animal. In perpendicular columns, Mr. Ruskin's theory also was, that lines should not be painted perpendicular; but, if painted at all, should be drawn across. Taking up the leopard's skin, and examining into the arrangement of the spots, the lecturer proceeded to show that the right view of the matter was entirely opposed to that put forth by Mr. Ruskin. It would be found that the spots on the leopard were so arranged that they developed in a very marked manner the form of the animal. They were close and small along the line of the back; they diminished in size gradually as they led the eye up to the head, and diverged into broader masses which marked the ribs and sides. Doubtless, were the haunts of the leopard examined, it would be found that some local reason, such as particularity of foliage in the landscape, existed for its possessing spots. The same reasoning would be found to apply to the tiger as to the leopard; and as regarded flowers, it seemed almost needless to insist that colour developed their form, else there would be no reason for the difference of hue between a flower and its leaf. His first proposition would, therefore, be found a safe rule in Decorative Art. A column of the Egyptian temple at Karnak might be taken as an instance. These columns were lotus-shaped,—the base representing the bulb, the column the stalk, and the summit the flower. The painting on the bulb developed the form of the leaf, and the lines in which it was disposed gave a purpose to the design. Above, the lines were so arranged as to show the flowers. There were cross lines on the column, it is true, but these were only placed to assist the eye in taking in the immense height of the stalk, which in the temple of Karnak was sixty feet. That the colour here developed form could not be doubted, if, side by side with the painted specimen, were placed an unpainted column, which would be found bare and unsightly, form being entirely undeveloped.

As regarded the use of colour, it was also a proposition that colour should be used to assist light and shade, helping the undulations of form by the proper distribution of the several hues. It was evident that light colours would best appear in light places and dark colours in dark places, for by that means the aim intended was best obtained. But, for that purpose, it would be found necessary and proper to use the primary colours on small surfaces and in small quantities, whilst the larger masses were balanced and supported by the secondary and tertiary colours. Many persons, he feared, might object to this latter proposition, having an aversion to the contrasts of the primaries; but primaries were never vulgar, and, used on small surfaces, they were indispensable, and would be found to be set off with great effect by the secondaries and tertiaries used on a larger scale. The primaries were invariably used by the Arabs, Greeks, and Moors,—the secondaries and tertiaries becoming more frequently applied as Art declined. In Egypt, at first, primaries alone were employed, and the secondaries only came in fashion after the Greeks prevailed,—the tertiary coming in under the Romans, who used colour regardless of harmony and the great principles of Decorative Art. The same progression might be observed in Greek, Moorish, and Middle-Age Art. It would be found proper, too, in ornamentation to use the primary colours on the upper parts of objects, and the secondary and tertiary on the lower; for in this all the old schools gave us the example, more especially the Moorish. Even in Pompeii there would be found a regular gradation from light to dark as the colours descended. It was a law which would be found most advantageous in its application at the present day. In our ceilings, the primaries would be found effective; whilst the walls, adorned with secondaries and the floor with tertiaries, would complete the picture. A judicious mixture of tertiaries with primaries would also be found useful.

It was Field who first discovered the rules of chromatic equivalents; he discovered that the sun's ray was a compound of three colours, blue, red, and yellow, in various proportions, instead of seven, which were long supposed to be the prismatic number. The primaries, to be of equal intensity, were discovered to harmonise or neutralise each other in the proportion of 3 yellow, 3 red, and 3 blue; integrally as

16. The secondaries in the proportion of 8 orange, 13 purple, and 11 green; integrally as 32. The tertiaries contain (compound of orange and green) 19; russet (orange and purple) 21; olive (green and purple) 24—integrally as 64. The result being, that each secondary being a compound of two primaries, was neutralised by the remaining primary in the same proportions;—thus, 8 of orange by 8 of blue; 11 of green by 3 of red; and 13 of purple by 3 of yellow. Each tertiary being a binary compound of two secondaries, was neutralised by the remaining secondary; as 24 of olive by 8 of orange; 21 of russet by 11 of green; 19 of citrine by 13 of purple.

The nearer these colours were to a balance the more harmonious would they become. So exact was the balance of proportions, that if they were placed on a circular piece of paper which was spun quickly round, the result to the eye would be a neutral tint, almost, though not quite, white. All this results, however, from the colours being used in their prismatic intensities, for each colour has a variety of tones when mixed with white, or of shades when mixed with grey or black. When a full colour is contrasted with another of a lower tone, the volume of the latter must be proportionally increased; so as regards the area or extent of the fabric to be coloured requires variety in the intensity of the colour. In Indian fabrics, the larger their area the lower is the tone of their ground.

The concluding portion of the lecture was devoted to the description and illustration of the contrasts and harmonious equivalents of tones, shades, and hues; the positions which the several colours should occupy; the law of simultaneous contrasts of colour; and the means of increasing the harmonious effects of juxtaposed colours. These were defined by several propositions, in substance as follows:—Each colour has a variety of hues, obtained by admixture with other colours, in addition to white, grey, or black; then we have yellow,—orange-yellow on one side and lemon-yellow on the other; so of red,—scarlet-red and crimson-red; and of each, every variety of tone and shade. When a primary, tinged with another primary, is contrasted with a secondary, the secondary must have a hue of the third primary. In using the primary colours on moulded surfaces, we should place blue (which retires on the concave surfaces), yellow (which advances on the convex), and red (the intermediate colour), on the under-sides, separating the colours by white on the vertical planes. When the proportions required by the proportions of Field cannot be obtained, we may procure the balance by a change in the colours themselves: thus, if the surfaces to be coloured should give too much yellow, we should make the red more crimson and the blue more purple,—that is, we should take the yellow out of them; so if the surfaces should give too much blue, we should make the yellow more orange and the red more scarlet. The effects of light and shade would thus be heightened and increased. The various colours should be so blended that the objects coloured, when viewed at a distance, should present a neutralised bloom. This was a result always sought and obtained by Orientals in their fabrics, where no colour would be found to overpower another. No composition can ever be perfect in which any one of the primaries is wanting, either in its natural state or in combination. When two tones of the same colour are juxtaposed, the light colour will appear lighter and the dark colour darker. When two different colours are juxtaposed, they receive a double modification:—first, as to their tone, the light colour appearing lighter, and the dark colour appearing darker; secondly, as to their hue, each will become tinged with the complementary colour of the other. Colours on white grounds appear darker, on black grounds lighter. Black grounds suffer when opposed to colours, which give a luminous complementary. When ornaments in a colour are on a ground of a contrasting colour, the ornament should be separated from the ground by an edging of lighter colour, as a red flower on a green ground should have an edging of lighter red. When ornaments in a colour are on a gold ground, the ornaments should be separated from the ground by an edging of a darker colour. Gold ornaments on any ground should be outlined with black. Ornaments of any colour may be separated from grounds of any other colour by edgings of white, gold, or black. Ornaments in any colour, or in gold, may be used on white or black grounds, without outline or edging. In "self tints," tones or shades of the same colour, a light tint on a dark ground, may be used without outline, but a dark ornament on a light ground requires to be outlined with a still darker tint.

These general proportions having been disposed of, Mr. Owen Jones concluded by making some practical observations upon the woven fabrics of this collection, explaining the design of each. In treating

the subject of the Cashmere shawl, he showed that the mode of wearing it in England was ridiculous; that the ornament ends were so for certain purposes, namely, hanging down in front of the person, after the plain part was girdled round the body; so in Indian scarfs, to wear which on the shoulders was exhibiting ignorance of Decorative Art, for these scarfs were intended to be twisted for turbans, the ornamented ends forming the end or fall at the side of the head. Mr. Owen Jones concluded his lectures by calling on the ladies to exercise their nice faculties for colour and harmony to reform our degenerate public taste.

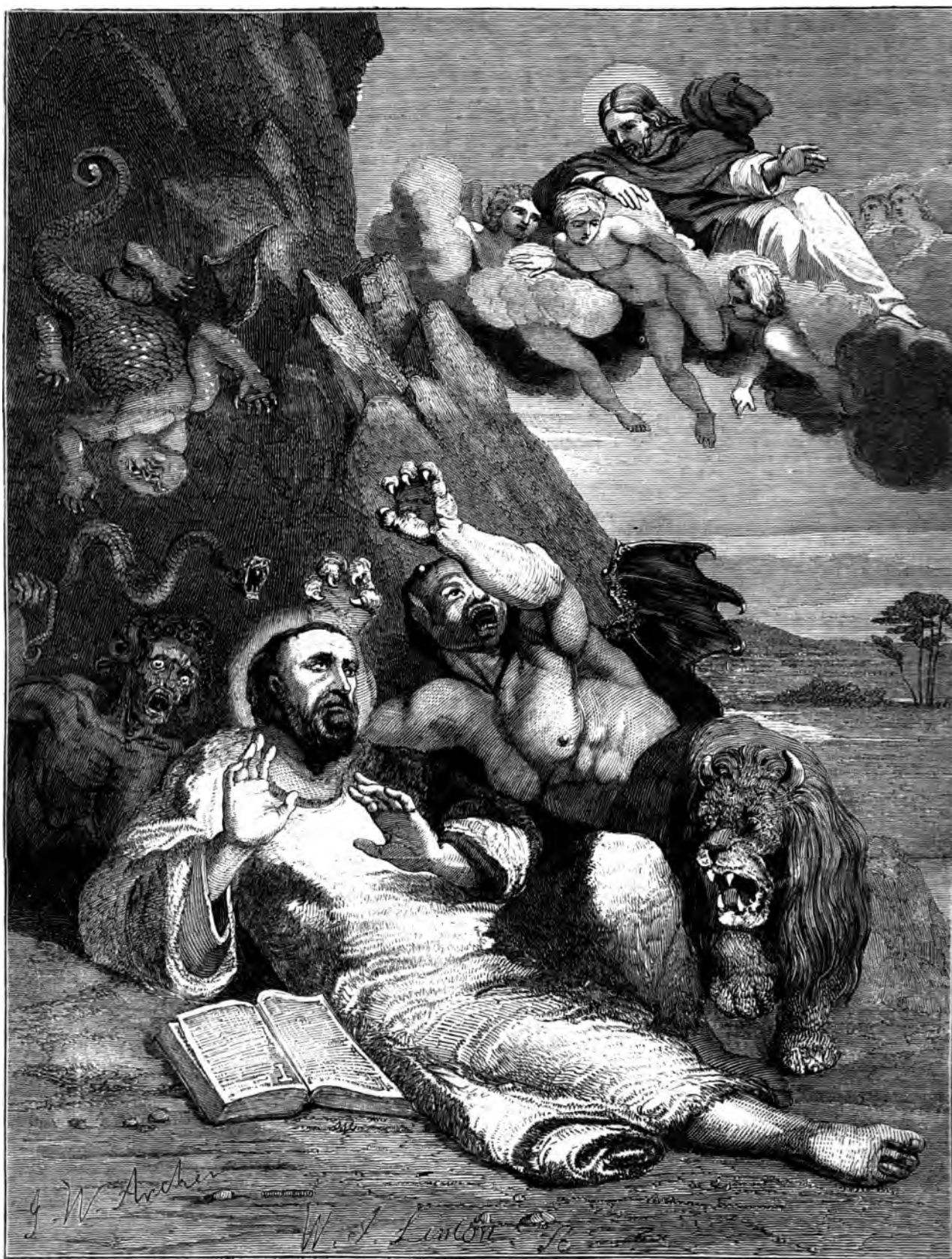
CORK INDUSTRIAL EXHIBITION.

This interesting and important Industrial Gathering was opened, with due solemnity and *clat*, by the Lord Lieutenant and the Countess of Eglinton on the 10th inst.

The Exhibition is held in the Corn Exchange, a new building. The entrance, or Northern Hall (the Corn Exchange proper), entered from the quays, is 76 feet square and 50 feet high, divided into nave and aisles, the nave rising into a species of clerestory, with elevated side lights. This fine apartment contains, in various glass cases, all the fine-texture articles, damask, linens, tabinets, crochet, embroidery, &c.; and here also a tabinet and velvet loom are in full operation, showing the process of weaving those articles. From this hall is a noble arched entrance, twenty feet wide, descending by the steps into one of the finest rooms in Europe, the Fine Arts Hall, 145 feet by 58 feet, in the centre 45 feet high: it has an arched roof in one span, with laminated timber girders, and a continuous top-light in the centre, 8 feet 6 inches at each side. The extreme end is circular; and the view from the Northern Hall of this beautiful room, filled with sculpture and painting, is very beautiful. The united length of these rooms seen at one time is 221 feet, running north and south. Running east and west, adjoining the North Hall, and crossing the Fine Arts Hall is a transept 320 feet long by 30 feet wide; adjoining which, to the south at each end, are halls, each about 130 feet by 80 feet,—in all, six great halls for the various purposes of the Exhibition, with committee and refreshment rooms, and various offices attached, spacious courts, &c. In the Fine Arts Hall works have been sedulously collected from Irish artists of eminence, whether settled in London or elsewhere. Thus, we have once more Macdowall's "Eve and Psyche," and Foley's two large figures, the "Youth at a Fountain," and the "Wanderer," in the hall. Maclellan's "Spirit of Justice," a fresco of which he has executed for the House of Lords, is conspicuously placed, as it ought to be in such a collection. Of the merits or demerits of these productions nothing more is to be said,—and for the remainder of the fine arts it is almost a charity to say nothing. But "the real interest of the Exhibition," the "Athenaeum" observes, "centres in the industrial products. This is the case not only as to the social consequences of the gathering, but even as to the skill displayed. Foley and Maclellan are a credit to Ireland, no doubt; but their triumphs are individual and exceptional,—producing no results for the country or for the race. The excellence displayed by the weaver and the lace-maker is of social and political importance; and in this department of the Exhibition we cannot award our praises too warmly. The poplins of Irish manufacture, the laces of Limerick and Belfast, are already famous wherever fineness of tissue and delicacy of finish are appreciated, and their reputation must be increased by the many exquisite specimens here shown to the fair and fashionable visitors. In this direction the Irish Exhibition will probably do a great service to native industry. The Crystal Palace was not particularly rich in specimens of Irish work,—one reason, among others, for the effort now being made in Cork; and thousands of persons retired from that vast collection without being struck with the minute beauty of the island products. This omission, so far as the tourists to Cork are concerned, may now be rectified."

GAS IN ROME.

We mentioned some time since, that arrangements had been made by an English company with the municipal council of Rome, for lighting the Eternal City with gas. Numerous obstacles have interposed to prevent the consummation of the scheme up to this time, but, through the perseverance and energy of Mr. Shepherd, the engineer, these have all been overcome, and the works will, we believe, be forthwith commenced under his directions. An account of the difficulties which have beset the attempt from first to last would be interesting and instructive. Mr. Shepherd has already successfully effected the lighting of several continental towns, and we cordially wish him success in his present undertaking.



THE TEMPTATION OF ST. ANTHONY.—A. CARRACCI.

This fine picture represents the saint reclining on his back, in the desert, and tempted on either side by demons; regardless of whose efforts he appears to be engrossed by a vision above of the Saviour supported by angels. The subject is one which has been frequently handled by the Dutch and Flemish schools, who have taxed their invention to produce the most hideous forms; and in endeavouring to

carry out a lofty conception, have sunk into the ludicrous and absurd. In the work before us, Carracci has avoided this extravagance, and his composition is full of poetic feeling, if not of sublimity. This picture was formerly in the Borghese Gallery at Rome; it was afterwards some time in the collection of Lord Radstock, and was purchased for the nation in 1846, of the Earl of Dartmouth.

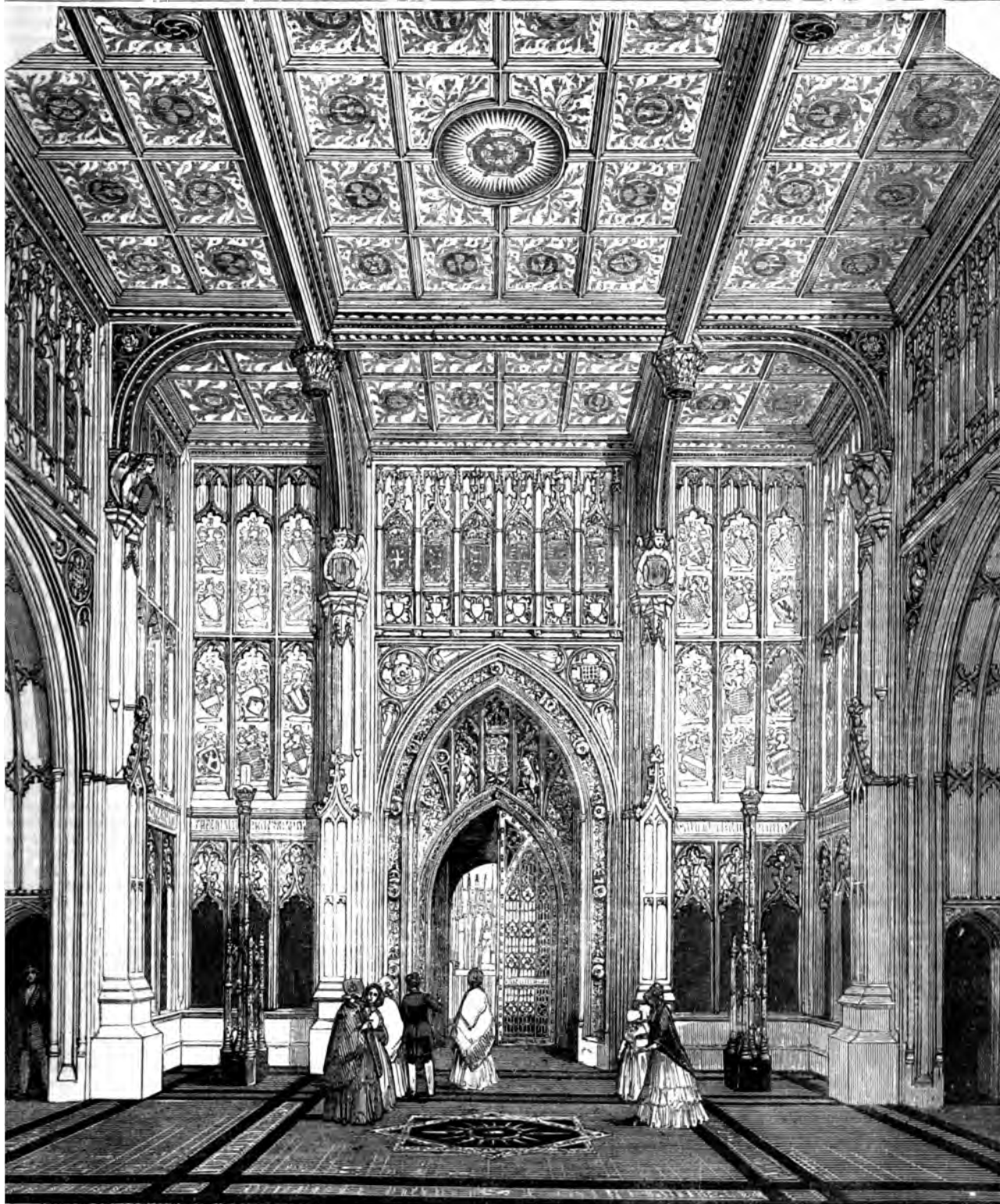
THE PEOPLE'S ILLUSTRATED JOURNAL

OF
Arts, Manufactures, Practical Science, Literature, and Social Economy.

No. IX.

SATURDAY, JUNE 26, 1852.

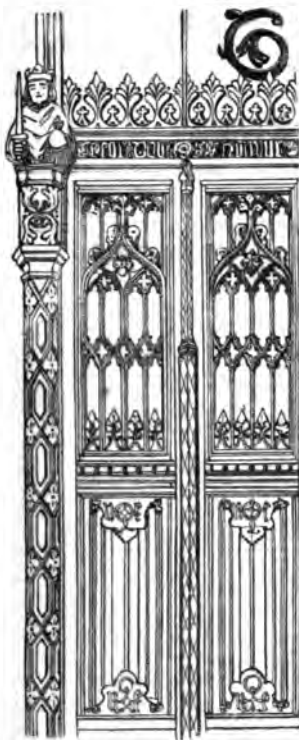
PRICE TWOPENCE.



NEW HOUSE OF LORDS.—THE PEERS' LOBBY.

THE NEW PALACE OF WESTMINSTER.

THE HOUSE OF LORDS.



SPECIMEN OF PANELLING.

THE general plan, and a sketch of the History of the New Houses of Parliament, having already been given (Nos. 1 and 2 of "THE PEOPLE'S ILLUSTRATED JOURNAL"), we shall, from time to time, describe their principal compartments in detail, commencing now with the House of Peers, which, as it holds the highest rank, was also first completed, having been ready for business and inaugurated by her Majesty at the commencement of the session of 1847.

Passing over for the present the Victoria Tower and Gallery, which will form the subject of a subsequent notice, we shall take a very rapid glance at the exterior of the building devoted to the upper branch of the Legislature.

The exterior of the House of Lords presents no enriched architectural features; but its massive walls are well proportioned, and have a solid appearance. As seen from the House Court, the exterior shows a low and boldly embattled portion, resting on an arcade of flattened arches, with windows of square form, traceried, and having moulded weather-tables; a string-course, with paterne, runs along above the windows. This portion serves as the Corridor of the House, and projects many feet from the side of the main building. Above this, the six finely-proportioned and traceried windows of the House are

seen, and between each a plain massive buttress. The windows have weather-tables, and a string-course, with paterne, decorates the walls above the windows. Lofty battlements crown the whole.

INTERIOR OF THE HOUSE.

But if the exterior is unpretending in aspect, the interior is unquestionably one of the most gorgeously decorated apartments which has ever been produced in this or any other country in Europe. Here everything that the upholsterer, the carver, and the house-painter could bring to bear upon an already well-proportioned apartment, has been bestowed with a lavish hand; but, at the same time, it may well be questioned whether all these decorative accessories are properly to be considered as architectural, and whether more might not have been accomplished by purely architectural means. However, as it stands, let us describe it.

The House of Lords is 90 feet in length, 45 in breadth, and of the same height. In plan, the House is divided into three parts; the northern and southern are each considerably smaller than the centre, which constitutes the body or floor of the House, wherein are the Wool-sack, clerks' tables, &c.; and on either side the seats for the Peers, in rows. The southern end is the part of the House in which the Throne is placed, and is also for the accommodation of distinguished foreigners and others; whilst the northern has the Bar for its boundary, and is for the service of the House of Commons, when summoned to the Upper House, to attend her Majesty or the Royal Commissioners; and where, also, counsel stand during judicial investigations. The House is lighted by twelve lofty windows, six on each side; each divided by mullions and transoms into eight lights; the upper rows subdivided, and all filled with quatrefoil tracery. The splay of the jamb of the windows is ornamented by painting; the words "Vivat Regina" being many times repeated round them, having between each word a quatrefoil, alternately blue and red. The windows will all be filled with stained glass, representing the Kings and Queens—both Consort and Regnant—of England, standing under canopies of elaborate design. The style of colouring is that which was in fashion from the middle to the end of the fifteenth century.

At both ends of the apartment are three archways, corresponding in size and mouldings with the windows, the surfaces of wall within which are destined for fresco paintings, viz.:—the three at the Throne end:—1. (Over the Throne) The Baptism of King Ethelbert, by Mr. Dyce, R.A.; 2. The Black Prince receiving from Edward III. the Order of the Garter, by Mr. Cope, R.A.; and 3. Henry V., when Prince of Wales, submitting to the authority of Judge Gascoigne, by the same artist:—the three at the other end abstract personations of the principles which these three historical subjects are selected to illustrate, viz.:—1. (In the centre, opposite Ethelbert's Baptism) *Religion*, by Mr. Horsby; 2. (Opposite the Institution of the Order of the Garter) *Chivalry*, by Mr. MacIise, R.A.; and 3. (Opposite Prince Henry sent to Prison) *Justice*, by the same. Between the windows, the arches at the

ends and in the corners of the House are niches, richly canopied; the pedestals within which are supported by demi-angels holding shields, charged with the armorial bearings of the Barons who wrested Magna Charta from King John, and whose effigies, in all eighteen, are placed in the niches. The demi-angels, pillars, pedestals, and canopies, are all gilded, and the interiors of the niches are elegantly diapered. Above the niches are corbels, whence spring spandrels to support the ceiling. These spandrels are each filled with one large and two small quatrefoils, deeply moulded, and having roses in their respective centres. Similar quatrefoils fill the spandrels over the windows, and all are elaborately gilded.

The ceiling is flat, and is divided—by tie-beams of great bulk, on each face of which is sculptured "Dieu et Mon Droit," twice repeated—into eighteen large compartments; these are each again divided, by smaller beams, into four, having in their centres lozenge-formed compartments, deeply moulded. Different devices and symbols, carved with the utmost delicacy of touch, fill the lozenges, and all of them are gilded. Amongst the devices, and immediately over the Throne, is the Royal monogram, crowned, and interlaced by a chord, the convolutions of which are so arranged as to form loops at the corners; whilst, similarly crowned and decorated, the monograms of the Prince of Wales and Prince Albert fill the lozenges over their respective seats. The cognizances of the White Hart, of Richard II.; the Sun, of the House of York; the Crown, in a bush, of Henry VII.; the Falcon, the Dragon, and the Greyhound, are in some of the lozenges; whilst the Lion passant of England, the Lion rampant of Scotland, and the Harp of Ireland, fill others. Sceptres and orbs, emblems of regal power, with crowns; the scales indicative of justice; mitres and crosiers, symbols of religion; and blunted swords of mercy; add their hieroglyphic interest: while crowns and coronets, and the ostrich plume of the Prince of Wales, form enrichments more readily understood, and equally appropriate. These devices are encircled by borders, some of roses, others of oak leaves; but the greater part with foliated circles, having cords twining round them and the symbols in admirable intricacy; and all of them are most elaborate in workmanship; indeed, so minute in detail, that an opera or magnifying glass is required to detect all their beauties. In the vacant corners between the lozenges and the mouldings of the beams, the ceiling is painted of a deep blue, and surrounded by a red border on which are small yellow quatrefoils. Within the borders are circles, royally crowned; and from them proceed sprays of roses, parallel to the sides of the lozenges. The circles contain various devices and shields: amongst the former are the rose of England, the pomegranate of Castile, the portcullis of Beaufort, the lily of France, and the lion of England; and in the latter are the fanciful armorial bearings of those counties which ages since composed the Saxon Heptarchy. Where the lozenges are filled with the mitre, the circles are gules and charged with a cross; and issuing from the circle are rays, instead of sprigs of roses. At the intersections of the tie-beams are massive pendants, moulded, and carved to represent crowns; and lesser pendants, or coronals, similarly carved, are at the centre of each tie-beam; whilst richly carved bosses are placed at the junctions of the smaller ones. The under surfaces of the pendants are sculptured to represent roses. The whole are gilded and enriched by colour. The ceiling is, as may be inferred from this imperfect description, most striking in its appearance; the massy tie-beams, apparently of solid gold, so richly bedight as they are with that precious metal, and the minute carving which fills up the lozenge-formed compartments, aided by the glowing and harmonious colours of the devices, painted on the flat surface of the ceiling—all produce an absolutely imposing and gorgeous effect.

Below the windows, the walls of the House are covered with oak panelling, elaborately wrought.

From the floor, about three panels high, the pattern of the panelling is the style termed "napkin," having, in the angles formed by the folds of the drapery, at the upper and lower parts of the panel, V.R., with an oak wreath and chord intertwining. The fourth row of panels from the floor has ogee arches, with crockets and finials; quatrefoils and tracery subdivide the arches, whilst in their bases runs a beautiful flower ornament. At every third panel is a pillar exquisitely wrought, and crowned with a small bust of one of the Kings of England. The busts of the very earliest Kings are, of course, imaginary; but those for which authorities could be found are perfect specimens of portrait carving in wood, so truly is the resemblance between them and the originals carried out, in every little point. The pillars in the southern division of the House have pedestals affixed to them, on which are lions, sejant, holding shields emblazoned with the arms of England. Between the other panels are very slender angular-shaped pilasters, wrought in delicate workmanship. Above the panels, between each bust, runs the following inscription—"God save the Queen," in open-worked letters of the Tudor character: above this runs a pierced brattishing of trefoils, of great lightness of design and delicacy of execution. A canopy springs from this brattishing, and is supported by moulded ribs arching from the pillars and pilasters. The upper parts of the spaces between the ribs are filled with richly traceried arches and quatrefoils; and the surface of the canopy is gilded, and decorated with the armorial bearings of the various Lord Chancellors of England, from Adam, Bishop of St. David's, in 1377, to the late Chancellor, Lord Cottenham. These escutcheons present a remarkably rich and unique decoration; and, since all are helmeted, crested, and mantled, the variety of colours so displayed, the mantlings partaking of the chief colour in the shields, is very striking. The arms of the various sovereigns under whom

the Chancellors have held office, are also painted in all their glowing emblazonments.

At the northern end of the House, the episcopal arms fill the spaces of the canopy. The front of the cove, or canopy, is moulded, having trellace in its lower moulding, and at every space corresponding to the pillars of the panelling is a small carved pendant; above it is a lion's head in strong relief, and thence spring the standards to the brass railing of the Peereses' Gallery. This railing is of simple but exquisite design; having a series of roses, deeply wrought and foliated, running along its base. The standards are partly twisted; and between each runs a twisted rail, supported by segments of arches foliated. A twisted rail passes along midway between the base and the top; and where all the rails and arches join each other, knobs richly enamelled with colour and gilding, give richness and effect and variety of outline to the whole. Admission to this balcony is obtained from the upper Corridor, by small doorways under each window; and as the doors are panelled like the rest of the wall, and have no distinguishing features to indicate their purpose, it would be impossible to surmise the existence of so many entrances when they are shut. A single row of seats runs along the Gallery. The panelling above the Gallery is very rich in its details. The lower panels are napkin pattern, but the upper series have in each labels running from the upper corners, interlacing each other down the centre, and then passing into the lower corners, and having on each of them, in diagraphic



CORRIDOR.

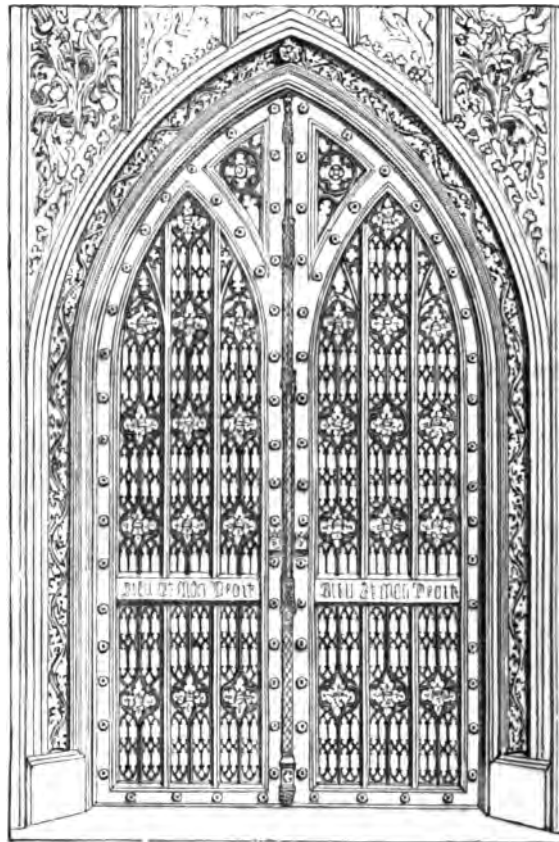
work "God save the Queen." The remaining portion of the panels is filled with vine-leaves and grapes in relief. Two elegantly carved slender pillars, with capitals of varied design, are at the angles of the splay of the windows, and one on either side of the doors under the latter: they support a cornice with pateræ, and embattled. Above the cornice, a richly carved, foliated brattishing runs all round the House, whilst at intervals, corresponding to the pillars, tall finials give diversity to the outline. From the finials at the angles of the windows rise the massive branches for the gas lights; they are of bold and graceful form, and terminate in a coronal, whence the light issues.

The centre of the southern end of the House is occupied by the golden Throne, and on either side of it below the Peereses' Gallery is a doorway, the spandrels of which are highly enriched, leading into the Victoria Lobby. We shall defer our description of the wonderful variety and beauty of the decorations of the Throne till a succeeding number, when we shall give a complete representation of it; for to attempt to convey an idea of the details without pictorial help would be futile. Two candelabra of most exuberant richness of design, stand on either side, a few paces in front of the Throne, and these we shall illustrate, in picture and words, in our next notice.

The northern end of the House has the Reporters' Gallery over the principal doorway in its centre; and, on either side, three small arches under the Peereses' Gallery, each of them having a sunken panel above the arch, containing symbols of the Virtues, &c., held by angels. The Strangers' Gallery is above the Reporters'; and, as before-mentioned, is placed in the recesses of the great arches.

The Reporters' Gallery is most convenient, both in its arrangement and ease of access, the comfort of the gentlemen of the Press having been well studied. It is approached by a staircase on the west side of the Peers' Lobby. From the floor of the House, the appearance of this Gallery is eminently beautiful. It projects several feet from the wall, and is supported by five arches, three in the front, and one at each end, the central arch in the front being of wider and loftier span than the others, which have small bas-reliefs of angels holding wreaths, within which are symbols of two of the virtues, in sunken panels above

them. Above the arches springs a canopy similar to that round the other parts of the House, divided into compartments, traceried and gilded also; the compartments over the centre door having within them the coat armour of the Saxon, Norman, Plantagenet, Tudor, Stuart, and Hanoverian houses, painted upon shields; whilst in the compartments over the side doors are the arms of the Archiepiscopal sees, and some of the Bishoprics, in continuation of the series of Episcopal arms, emblazoned at this end of the room. The front of the Gallery is divided into three compartments, by buttresses, which are enriched by panels and crowned with poppy-heads to correspond to the doorways beneath; within them are sunken panels most beautifully ornamented with deeply sculptured arches and quaterfoils, and gilded; in lozenges of eccentric form and foliated, the badges of different sovereigns of England are painted, whilst at the lower part of the panels a foliated brattishing is introduced. The arches under the Gallery, and the three small arches on either side of it, are hung with the richest and brightest red velvet, and a clock, the face of which is



THE BRASS GATES, PEERS' LOBBY.

exquisitely enamelled, in colours, stands on a bracket in front of the Gallery; the case is beautifully carved, the central front gable crocketed and finialled, whilst small buttresses with pinnacles are on either side.

The Bar is about nine feet wide and three deep; and on its outer and inner fronts and sides, it is ornamented by small sunken panels, having two rows of quaterfoils and arches wrought within them. At each corner of the Bar is a massive post, having on its outer faces the monogram V. R., within quaterfoiled circles; and a narrow panel with pateræ, likewise on each face. The angles of the posts are ornamented by a reversed ogee moulding. The two inner posts of the Bar are crowned with small figures of the lion and unicorn holding shields; and the two outer are terminated by a cap, having battlements wrought on it.

Affixed to the wall, on the right hand of the Bar, is the enclosed and elevated seat of the Usher of the Black Rod: it is panelled and decorated in corresponding style with the extreme ends of the Peers' seats, which have panels of extremely intricate treillage of vine, oak, rose, and thistle patterns, beautifully sculptured and pierced, let into them. The extreme ends of the seats rise in steps, corresponding to the steps on which the seats are elevated, and at their corners are badges of some of the royal houses of England; the white hart, dragon, greyhound, &c. These figures are beautifully carved.

Two magnificent Candelabra of brass rise from the posts at the end of the Peers' seats; they are about twelve feet and a half high, and consist of a shaft, ornamented with a leaf pattern, and supported at the sides by short pillars, crowned with *fleurs de lis*; at about eight feet from the ground, the shaft has eight flying buttresses projecting from it, each with tracery and pinnacle work; and from them, in graceful curves, spring out branches, with sockets for lights. Oak

treillage is wrought in fantastic circumvolutions about the branches. Above this series of lights, four others of lesser dimensions add their intricate forms to the general richness, and the whole is crowned by a single light, rising from the centre. The workmanship of these Candelabra is most elaborate, and is worthy of their exquisite design.

The seats for the Peers are extremely comfortable, being thoroughly well stuffed. There are four rows of seats, each disposed in three ranges, so as to allow of free passage up the alleys thus made between the ranges.

The carpet is of deep blue, ornamented with roses in gold colour.

THE CORRIDORS.

On each side of the House are two doors, one near either end leading into corridors. The doors are panelled in the lower part, and filled with open-worked arches in the upper, which are glazed with plate glass.

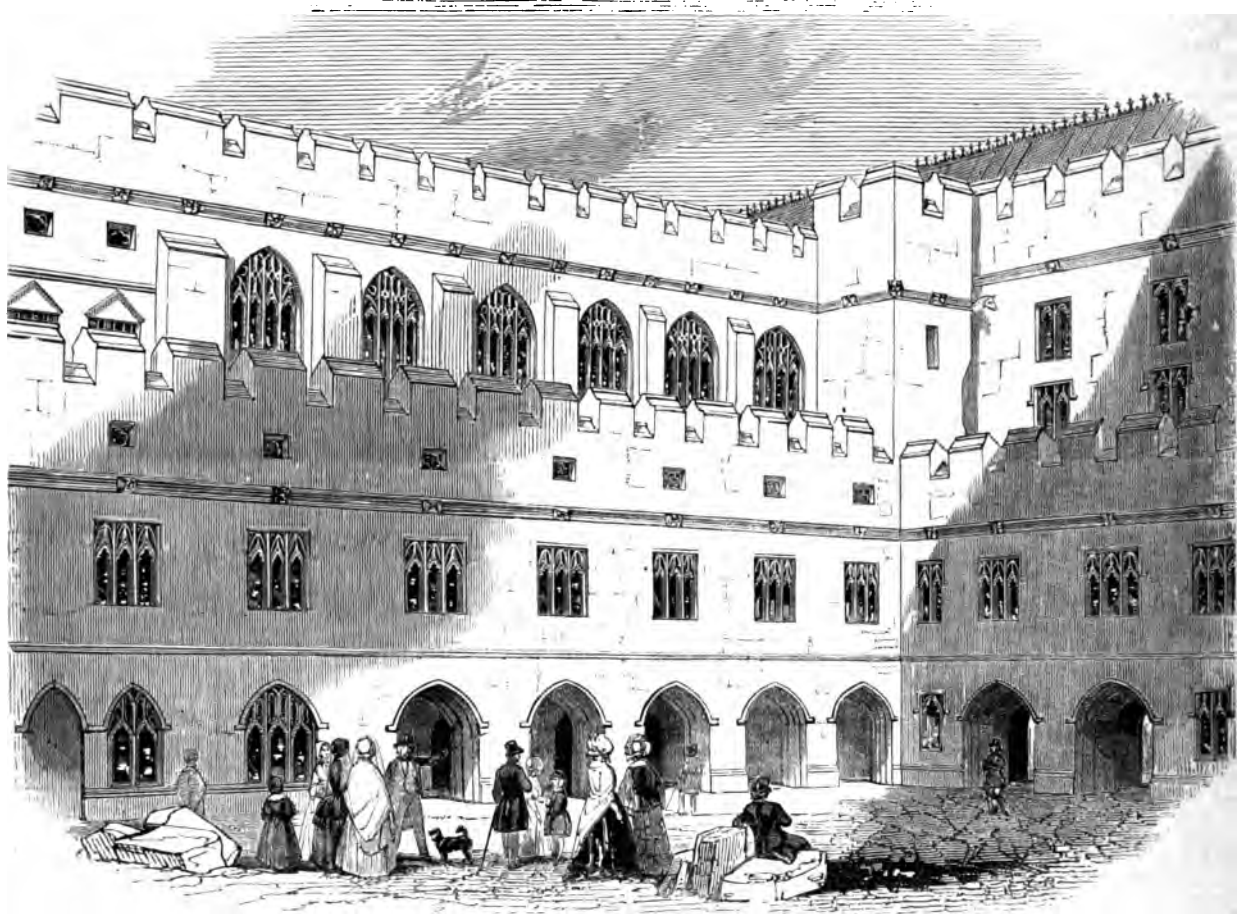
The Corridors are very handsomely panelled, and ceiled with oak, and extend the whole length of the House. Their appearance is singularly rich and effective, the warm colour of the panelling harmonising thoroughly with the stained glass and the rich blue of the carpet;

the windows are square-headed, divided by mullions, and traceried. The glass is richly diapered; and in labels running diagonally, the motto "Dieu et Mon Droit" is many times repeated. In recesses opposite to the windows are seats cushioned and covered with red leather. In the recesses, also, are branches for gas, and opposite the doors leading from the House, globe lights hang from the ceiling.

Above these principal Corridors are others, destitute of decoration, whence ingress is obtained to the Peers' Gallery. This upper Corridor is lighted by small quatrefoil-shaped windows, and gas-lights are pendant from the roof.

THE PEERS' LOBBY.

The Peers' Lobby, which is the chief entrance to the House of Lords is a very beautiful apartment; and its decorations, both architectural and pictorial, are extremely elegant and appropriate. In plan, the Lobby is square, each side being divided into a wide central, and two smaller compartments, by buttresses. The lower division of each buttress is square, panelled on the face, gabled with crocketing and finials, resting



EXTERIOR OF THE NEW HOUSE OF LORDS, FROM THE HOUSE COURT.

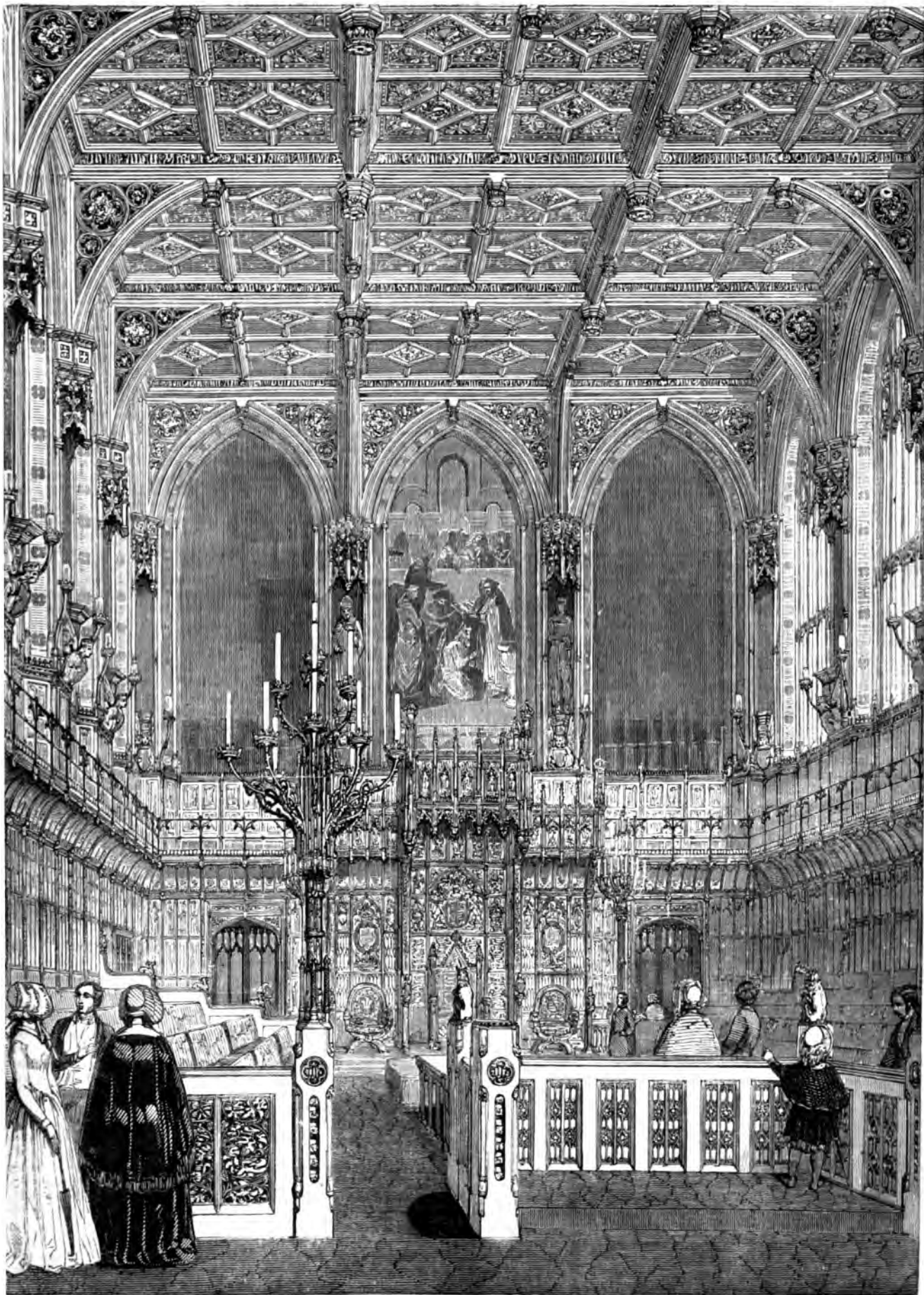
on a deeply moulded base; and the upper is octagonal, moulded, and having a small angular buttress on its face. At the tops of the buttresses are demi-angels coroneted, bearing shields, surrounded by the Garter, with V.R. entwined by a cord, upon them. From the angels spring the spandrels which support the roof.

The wide central compartments, on either side, have lofty arches, or doorways, all of precisely similar proportions and arrangement. The doorways on the east and west sides correspond with each other in detail, having quatrefoils in the spandrels, with the rose and portcullis in their centres. Above each arch is a series of six small ogearches, having crockets and finials, and separated by small buttresses with pinnacles: within them are painted the arms of the six different royal lines who have swayed the English sceptre—the Saxon, Norman, Plantagenet, Tudor, Stuart, and Hanoverian—each surmounted by a royal crown. Below each arch, and forming, as it were, a base to it, is a small panel quatrefoiled, and bearing in its centre a shield, on which the initials S.N.P.T.S.H. are painted, to correspond to the armorial bearings above them. The north doorway opens into the long corridor leading to the House of Commons; whilst the eastern and western open into corridors connected with the Libraries, and other rooms. The doors themselves are of oak, the hinges and locks being of exquisitely designed and wrought brass.

The East, and West, and North Doorways have recessed doorways, with arches of lower pitch, to correspond in general character with the

South Door, but of much plainer design. Each recessed doorway is divided, by slender buttresses, into three parts—a central and two narrow compartments. In the central one is the doorway, the spandrels of which have roses within quatrefoils; and above it the wall is formed into three quatrefoil panels, having within them shields containing the arms of England, Scotland, and Ireland, royally crowned, and with blue labels, on which are Anglia, Scotia, and Hibernia respectively. The narrow compartments have a deeply-moulded base, and are panelled, with quatrefoils, headed arches, and quatrefoils with roses in them. A string-course, with battlements, runs along, above the doorway, the whole length of the recessed portion, thus dividing it into two stories. The doors are of oak, richly panelled and traceried, having plate-glass in the tracery. Over the East and West Doors are clocks, the dials of which are beautifully enamelled in white, gold, and blue. On either hand, in the thickness of the wall, are small doorways, with embattled cornices, and decorated spandrels, which lead to the staircases, to the galleries, and into small rooms. The soffit of the recess portion is highly enriched with quatrefoiled arches.

The South Door, in its general form, corresponds to those on the other sides of the Lobby, having six arches over it, embellished like them, with the royal armorial bearings; but, in the details of the archway itself, the utmost magnificence is displayed. The arch is deeply-moulded, and round it rose-leaves, well chiselled and richly gilded, form an elaborate and appropriate enrichment; whilst, at intervals, Tudor



INTERIOR OF THE HOUSE OF LORDS, FROM THE BAR.

roses, very boldly sculptured in alto-relief, royally crowned, painted and gilded, add their gorgeous hues to the whole.

Recessed about four feet is another arch, but not of so lofty a pitch as the external one, and, within the mouldings of this, oak-leaves, gilded, are introduced. The space over the arch is divided into five compartments, or panels, the central one quatrefoiled, and bearing in its centre a shield of the Royal Arms of England, surmounted by a crown, and having the motto "Dieu et Mon Droit" on a blue label; whilst, in the panels on either side, likewise quatrefoiled, are the lion and unicorn, each bearing a small banner: roses and thistles fill up the other panels, whilst shamrocks form a cresting round the extrados of the arch; and, as all parts are coloured and gilded, the effect is truly magnificent. Indeed, this, the chief entrance to the House of Lords, may justly be called "the beautiful," its decorations are so exquisitely arranged and carried out.

The BRASS GATES which hang in the inner arch are perfect specimens of the art of working in metal; so beautiful and intricate in design, yet so skilfully worked out, that they are marvels of art. The Gates are of two wings, each divided by mullions into three compartments, and forming arches having floriated quatrefoils in the angles above the arches. The spaces between the mullions are filled with rows of small trefoil-headed arches, and quatrefoils. The arches are trefoiled, and in their centres are traceried lozenges of delicate workmanship. The quatrefoils have the rose, thistle, and shamrock clustered together, and royally crowned, within them. A broad band of brass crosses each gate a little below the lock, and on either is engraved "Dieu et Mon Droit." Roses are studded at intervals round the Gates, and a beautiful piece of pinnacle work passes up the centre to conceal their junction. The key to these Gates is well worthy of notice for its elaborate workmanship. It is of wrought-steel, and is five and a half inches in length. All the keys to the doors in the House of Lords are of steel, and of good design, but not so elaborately finished as this one.

The compartments on either side of the doorways are exactly alike in architectural ornament, but the upper stories on the south side are of solid wall; though mouldings, as for windows, are worked on them, whilst the others are pierced for windows. Each compartment is divided into two stories, by a bold moulding and band, on which is carved "Domine salvam fac Regiam." The lower stories have three ogee arches in them, rising from a deep base, crocketed, and terminated by finials, within obtuse quatrefoiled arches; the spaces above the ogee arches being filled with a diapering of flowers, sculptured in the stone. The upper stories, or windows, are divided by mullions and transoms into six quatrefoil-headed lights, those in the top ranges being subdivided and traceried. All the windows are glazed with stained glass, representing, on a richly diapered ground, the armorial achievements, mantled and helmeted, of the oldest noble families of England, with labels giving their names; in the pseudo-windows on the south side, the surface of the wall is gilded; and on it are emblazoned armorial bearings, in style to correspond exactly with the windows. Since the drawing, whence our Engraving is taken, was made, the tracery in the upper parts of the pseudo-windows has been enriched, by roses being painted with them.

The spandrels, which rise from the angles on the buttresses, to support the roof, are filled with quatrefoils; and they, as well as the beams which they sustain, are deeply ribbed and moulded, and decorated by small patterns, painted upon them in various colours slightly relieved by gilding. Pendants, richly carved and gilded, are at the intersections of the main beams. The spaces between the beams, and also between them and the walls, are subdivided into squares by lesser beams; and in the centre of the whole is a circular compartment, within which is painted a white and red rose, surrounded by a radiating nimbus, on a deep blue ground. Within the squares the ceiling is gilded, and on it are painted roses, thistles, and shamrocks, on a blue ground, surrounded by circular borders, enriched with small quatrefoils, having foliated ornaments of red and green spraying from them. This ceiling is peculiarly chaste and effective, its decorations being rich without any tendency to garishness, the prevailing tint of the beams &c., inclining to olive green.

The ENCAUSTIC PAVEMENT of this Lobby irresistibly attracts attention, and is of surpassing beauty. Double narrow alleys of black marble stretch across from buttress to buttress, and skirt round the room also, and within them is repeated the motto "Dieu et Mon Droit" in tiles, having white letters on a rich deep blue ground, surrounded by a narrow fillet of a Gothic pattern on a red ground. In the centre of the pavement is a Tudor rose, within a star of sixteen points, formed of various-coloured Derbyshire marbles, within a square border intersected by a lozenge, of brass, on which an elaborate flowing pattern of roses is engraved: the space between the points of the star and the brass border, being filled with cement of an ultramarine tint. The remaining portions of the floor are incrustated with blue and red tiles, alternately—the former having V.R. encircled by a cord; and the latter, the lions of England, upon them, and interlaced by bands of ornament in narrow tiles.

At the corners of the Lobby are magnificent standards of brass for gas lights. They consist of a shaft about twelve feet high, rising from a moulded plinth, coloured to represent black marble; from each corner of the plinth rises a small circular pillar, or buttress, to support the shaft, crowned with a lion's head. The space between the buttress and shaft is filled with treillage wrought with great delicacy; and every part of the pillars and shaft is elaborately worked out in lozenges and hexagons, with quatrefoils. The shaft is surmounted by a highly wrought coronal for the gas jets. The standards are gilded, relieved by gilt bronze. The representation we give will enable our readers to form a correct idea of this beautiful work of art. In our view of the

Peers' Lobby, the general effect of the architectural members and decorations is displayed, and especially of the "beautiful" south entrance; the Brass Gates are given in detail in the illustration beneath the Lobby, and a good idea of their exquisite design and workmanship may thus be formed; the Standards for Gas Lights are shown in the large view in their respective places.

TRAVELLING NOTES IN THE UNITED STATES.*

WHOEVER from this country visits the United States for the purpose of mere travelling, will probably at first experience a little difficulty in conforming to the mode of life in the great hotels. Private sitting-rooms are seldom asked for, except for families, and therefore not always to be had by persons travelling alone, or if so, at, in some cases, rather a high rate. The early dinner-hour is at first felt to be a constraint; but there is more trouble in deviating from, than in adhering to, the usual practice. At some of the best hotels at New York the hour is later, five to half-past, but in the other cities from two to three. French cookery is the rule in the cities, and an imitation of it in the country and on board the steamboats. Those remarkable river steamboats, some of them of astonishing dimensions, have been often described. They are bold conceptions, and admirably adapted to their double purpose of freight and passenger traffic. But on surveying with surprise the luxury and splendour of their decorations, you are tempted to ask yourself for what potentate of the East or West they were originally constructed, and how they contrived to get across the Atlantic. Everywhere you meet with uniform civility and attention, and even in the smallest country inns universal cleanliness, though often a scanty supply, according to English notions, of the materials of the toilette. The high wages of servants, and the difficulty of obtaining good ones, are, I believe, among the principal causes of the custom of so many people breakfasting, dining, and taking all other meals at the same table; and the general absence of conversation is the natural consequence of such a number of persons being brought together, unacquainted with each other, and perhaps mutually unwilling to form acquaintances they know not with whom. Meals, moreover, on such occasions, are popularly said to be "matters of business," to be got over as quickly as possible. Not so, however, at some of the best hotels, where the numbers you meet are smaller, and where mutual confidence springs up rapidly among people evidently of similar tastes and similar social position.

The autumnal climate is, as is well known, generally delightful, but this year there was a period of unusual heat in September, the thermometer being for some days from 92 degrees to 95 degrees for the greater part of the day. It was, however, so far endurable, that it did not seem to prevent any one going about his ordinary occupations. From 95 degrees the mercury sank, in less than thirty-six hours, to below the freezing point in and in the neighbourhood of Philadelphia, and, I believe, over a wide extent of country. The rapid alterations of temperature are among the most trying incidents to the climate of the United States. Its general brightness and dryness are said to be among the causes of the alleged excitability of the American character.

No one who has seen will ever forget the gorgeous autumn tints of an American forest, wherever the "hard woods," and not the pine predominate. That "lustrous woodland" is unequalled by anything of the kind in Europe. But to an eye accustomed to the luxurious loveliness, the exquisite outlines, the picturesque combinations of the south of Europe, the general aspect of the scenery in the United States (I speak of its northern portions) is monotonous. There are scenes on the Hudson, on the Catskill Mountains, in other directions in the State of New York; among the Alleghanies; on the banks of the Susquehanna and the Juniata; on the Ohio; in Vermont, among the White Mountains—to say nothing of Niagara, which needs no mention—doubtless of great beauty; but they are widely apart, and few in comparison with the great extent of country. The aspect of the country towns, too, is monotonous, as well as that of the villages, though they are bright and clean, with unvarying white houses and green Venetians, and white church-spires and public buildings. Here and there a few good specimens of Gothic and Elizabethan, and also of the Roman style, show a growing taste in architecture. The public buildings generally in the towns and cities are of fine dimensions and solidly constructed. One peculiarity in the cities is that of the lines of railway passing on a level along some of the principal streets. The trains are, however, drawn by horses from the point where they enter the suburbs, or soon after. Another unusual sight to an English eye is the habit of carrying the electric telegraph wires along the streets, into the heart of the cities. I counted six-and-twenty lines, on one occasion, visible from one spot. They are very loosely hung (partly, I believe, on account of the great changes of temperature to which they are exposed), and altogether seem put up in a very "rough and ready" manner. But of this no one will complain who finds that he can send a message from New Orleans to Quebec and Halifax, or from New York to Chicago, and receive an answer in a few hours, and for a very moderate payment. It is singular to see along the common road, in the remote forest, the solitary wire stretched, or rather dangling, from tree to tree, or from the rudest, and by no means the most upright, poles, crossing and recrossing the road to cut off angles, quite unprotected, but usually the trustworthy and all but instantaneous messenger of thought between minds as far as a thousand miles asunder. Even small country towns often have their electric

* From "Tremenheere's Notes on Public Subjects in the United States and Canada," MURRAY, 1852.

telegraph, conducted for many miles along the common township road from the main line. The chief characteristic, however, of the towns and villages is the breadth of the streets, the excellence of the foot-pavements, and the ornamental appearance of the trees which are so commonly planted along their sides. The portions of the cities, also, that are inhabited by the wealthier classes, partake largely of this element of cheerfulness and beauty,—a matter doubtless often before adverted to by travellers, but which it would be most desirable to imitate more frequently in our own land. The exceeding good taste of many private residences which I had the good fortune to see indicates the spread of real refinement. The public evidences, however, of the increase of mere luxury are very numerous, and excite many reflections on matters of public policy.

"OUR OWN CORRESPONDENT" OF A MORNING PAPER.*

"OUR own Correspondent" is the envoy of the fourth estate; its plenipotentiary, charged with the most difficult and delicate missions. He is more powerful in many cases, than the ambassador of a state of the first class; is looked up to with as much respect and treated with the same degree of fear as her Majesty's minister, and wherever he goes is sure of a good reception. He holds interviews with ministers, aye—and with their royal masters, and chronicles the overthrow of empires. His letters are of more importance to the million than those of the foreign secretary, and in their transmission they usually forestall the information of that all-feared functionary. In fact, the position of "our own correspondent" is a proud one in every respect, although it, too, has its dark sides, such as fatigue, both of body and mind, and the necessity to do for himself what other envoys are in the habit of getting done by their servants. For instance, if "Our Own" happens to be following the fortunes of the conquered, rather than that of the victorious party, he is apt to be taken and shot as a spy; he writes the history of a reverse "under the lee of a hayrick;" he is often without food or clothing sufficient, and not unfrequently he is obliged to act as his own courier and his own letter carrier. These, however, are exceptions, the rule being rather general that "Our Own" has comfortable quarters and unlimited credits. In one quality he must not be deficient, and that is, in impudence; for without that he can scarcely get on; but if in addition he be gifted with powers of chicanery, then is "Our Own" completely suited to his office, and in the words of the author of "the Personal Adventures of Our Own Correspondent," he succeeds in finding "good quarters when other men lie in the fields, good dinners whilst many are half starved, and good wine, though the king's staff be reduced to half rations."

Having thus premised, let us follow our remarkably cool friend through some of his wanderings. First of all, then, he starts at Lisbon, where in his capacity as envoy to the "Times" newspaper, he "has been a lucky dog in procuring diplomatic papers, and delivering them before they had reached the foreign minister, to whom they were addressed." It is not with money of course that this is done, vile dress! It is useless for such purposes; but some day or other he will tell you how he secured such prizes. Did he not publish the treaty of Unkiar Skelassi before any one else had seen it? Did he not send to his paper the Queen of Portugal's speech before it was delivered? and does he not know more about Sir Charles Napier's prize-money concerns than Sir Hamilton Seymour or any of her Majesty's ministers. Lucky dog! of course he does. "On that subject the truth has never been told, and not only the public, but Sir C. Napier himself has been mystified."

In or about the year 1848 "Our Own" leaves Lisbon, the scene of so many exploits, and goes off to Italy, where the rumbling noise of subterranean agitation seemed to give warning of coming events. On board the steamer, he describes, a fortnight before they took place, the events that occurred in Paris, and the flight of Louis Philippe—a person, by the way, whom he never admired; for "he was one of the few Englishmen who refused to go to his palace in the days of his greatest popularity." Then he reaches Genoa, where a friend to whom he confides "that he has to write on the state of Italy without any previous training for that subject," crams him with well-digested information for several hours, which probably enabled him at once to start for Milan, and write one of his clever letters. Here the national movement against Austria having commenced, by the adoption on the part of the Milanese of sundry plans directed against the revenue, such as the abandonment of all excisable articles, as coffee, tea, sugar, tobacco, and the lottery, "Our Own" thinks the Italians very plucky, begins to hate the Austrians, and as the revolution gains ground, is quite enthusiastic in favour of Italy and its enfranchisement from foreign rule. Now, however, he knows that he was humbugged and deluded, and the movement having been unsuccessful, he thinks that the conduct of Charles Albert was deceit of the blackest kind; that the Italians are great cowards, and that Radetzky was never beaten, but because he liked. However, these are after thoughts on the part of "Our Own." The insurrection or revolution having broken out, he takes up his residence at Novarra, whilst the patriots were driving the Austrians out of Milan. Here is an amusing account of how

excitement was first got up against the "Tedeschi" in the Lombard capital:—"Young men, generally artists, gifted with sonorous voices, and the *sang froid* acquired by frequent practice, were employed to read aloud such foreign journals as were permitted to circulate in the principal *cafés*. Of course these ardent youths improvised opinions and sentiments not to be found in the pages of the paper, to the great delight of the admiring hearers, and to the mortification of the spies of the police, whose reports were not believed at head quarters, no such passages as they quoted being to be found in the *Débats*, *Galignani*, or any other conservative organ, none but conservative journals being allowed to pass the post."

The revolution being successful, and the Austrians being driven back on Verona and Legnago, "Our Own" determines to follow the fortunes of the dominant party. Notwithstanding his opinion of Charles Albert, he finds means to ingratiate himself with most of the Sardinian officers in the field, and this at a time when he thought it absurd to imagine that 8000 disciplined Austrian troops should have been driven out of Milan by 500 (!) volunteers, fighting at random. No; Radetzky spent a week endeavouring to retake Milan, but never was in earnest in his attempt; and his only object was to blockade the city—an object, by the way, which, according to the statement of "Our Own," caused the Austrian the greatest loss that he sustained. Radetzky was not a whit more in earnest at Goito than he had been at Milan. "I can scarcely believe," says "Our Own," the great friend of the Piedmontese, "that Radetzky was in earnest at this place, as one parapet of the bridge was left untouched, and the houses were ill defended." At the Borghetto and Monzambano, where battles were fought, it is also our friend's opinion "that Radetzky did not mean to offer any serious resistance; the occupation of Verona, Mantua, and Legnago being the object next his heart." However, all this did not prevent our friend from being on the best terms with the heads of the movement at Milan and in the camp of Charles Albert. "I only knew one person on the day of my arrival, and I was literally without a single acquaintance at the camp, but ere a week had passed, in both places I had become the confidential friend of all public men of importance, and not a word was said in any leading quarter that was not reported to me. The fact is, with all southern nations I have an instinct of what will please, but with the German race I am not at home." Well said, indeed, oh, friend of Radetzky!

The head quarters of the Sardinian army were at Valleggio; but lodgings being difficult to obtain, "Our Own" ran the risk of being obliged to sleep in the streets, but by a stroke of genius he got into capital quarters:—

"Donna Lucia (at the request of Dr. Ereole, to whom 'Our Own' was recommended) did not hesitate in offering me a bed for one night only, as the officer to whom it belonged by right of billet was that day absent, and I lost no time in transporting bag and baggage, having made up my mind not to leave such admirable quarters as long as the army remained within ten miles of the Mincio. I took care not to alarm Donna Lucia's housewifery by any demands on her hospitality, or her domestic time. I sent in a small lamp and some wax-lights, dined at the Albergo, and passed up and down stairs with a velvet step. The result was, that when I met the Signore and the Signora next day in the passage, I was most kindly received by both; and the only complaints they made were, that I did not more fully avail myself of the accommodation of the house, and give more freely orders to their servants. Of course I replied in the most courteous terms. Now or never was the battle to be fought, and so thanking Donna Lucia for her hospitality, I made believe to take a final leave; but it is not every day in the year that wild Irishmen are seen on the banks of the Mincio; and my charming hostess would not let me depart without some information about foreign parts.

"Where was I born? In Ireland. Of what religion? A Roman Catholic, of course. You are, then, a Christian? An ugly man, but a good Christian. Did you know the great O'Connell? Did I not—he was my first cousin!"

"Our Own," who was no more O'Connell's cousin than you, gentle reader, or the writer of this article, got splendid quarters from Donna Lucia on the strength of his relationship. He roamed about the Sardinian lines after this unimpeded by sentries, and protected by the friendship of the Sardinian officers. He was present at the defeat of the Austrians at Pastrengo, and witnessed most of the incidents of the war, in the descriptions of which he falls foul of Carlo Alberto on every occasion without the slightest mercy. From Valleggio he moved to Dezenzano, when Charles Albert was obliged to retreat, and thence to Brescia and Cremona. From Cremona he was driven somewhat abruptly by the entry of the Austrians. He could get neither horse nor carriage; and, driving a wheelbarrow with his portmanteau and carpet bag, he made his way out of the town as fast as his legs could carry him, until he got a conveyance that took him to Placentia. There he was unfortunately taken for a spy. His fair complexion and hair (why the deuce did he not wear a darker wig?) caused him to be taken for an Austrian; and as he marched out of an inn he was followed by a crowd, till, at his arrival at the bridge of boats which crosses the Po, he had to encounter a mob of at least a thousand men, vociferating, "Tedescho (a German) spia!" (a spy) and "Morte!" An Italian pass saved him, however; he rejoined the army of Charles Albert at Codogno, and ultimately succeeded in reaching Milan, where the Austrians soon after entering, he retired to Turin and Leghorn. Of his future movements, "Our Own" says he will give us a further account shortly.

* The Personal Adventures of "Our Own Correspondent," in Italy, by M. B. Homan. London: CHAPMAN & HALL, 1852.

MURILLO.—HIS LIFE AND WORKS.

BARTOLOMEO-ESTEVAN MURILLO, the greatest of all the Spanish painters, was born at Seville on the 1st of January, 1618. He received his first instructions in the art from his relation, Juan del Castillo : but the latter having gone to settle at Cadiz, Murillo was obliged, for the means of subsistence, to have recourse to painting banners and small pictures for exportation to America. In that line he obtained full

employment, and began to distinguish himself as an able colourist. He was still very young, when he happened to see some works of Pedro de Moya, who was passing through Seville, on his way to Cadiz, which, being painted in the style of Vandyck, inspired him with the desire of imitating that great artist, under whom De Moya had studied shortly before his decease. The time he was able to avail himself of Moya's



PORTRAIT OF MURILLO.—PAINTED BY HIMSELF.

instructions was very short, and he resolved afterwards to repair to Italy for improvement. But his means were totally inadequate to meet the expenses of such a journey. Collecting, however, all his resources, he bought a quantity of canvass, divided it into a number of squares, upon which he painted subjects of devotion and flowers, and, with the produce of the sale of these, set out upon his journey, unknown to his relations and friends.

On his arrival at Madrid, he waited upon Velasquez, his countryman, and communicated his plans to him. Struck with the zeal and talents of the young artist, Velasquez treated him with the greatest kindness, and diverted him from his project of the journey to Rome, by assisting him in a more effectual way, procuring him full employment at the Escorial, and in the different palaces of Madrid.

Murillo returned to Seville in 1645, after an absence of three years :

the following year he finished painting the little cloister of St. Francis ; and the manner in which he executed it, produced sentiments of the greatest astonishment among his countrymen. His picture of the death of Santa Clara, and that of St. James distributing Arms, served to crown his reputation. In the first he showed himself a colourist equal to Vandyck, and in the second a rival of Velasquez. They obtained him a multitude of commissions, which were not long in procuring him an independent fortune. His success, however, never led him to be careless of his reputation : he gradually perfected his manner, by giving more boldness to his pencil, and without abandoning that sweetness in his colouring which distinguished him from all his rivals, increasing its strength, and giving greater freedom to his touch. It is impossible within our limits to mention all the works with which he enriched the churches and convents of Seville, and other cities of Spain. Having



THE ASSUMPTION OF THE VIRGIN, BY MURILLO.—IN THE GALLERY OF THE LOUVRE.

been invited to Cadiz, to paint the grand altar of the Capuchins, he there executed his celebrated picture of the Marriage of St. Catharine. As he was about to finish it, he wounded himself so dreadfully on the scaffolding that he continued to feel the effects of it until his death, which happened at Seville, in April, 1682.

To the greatest merit as an historical painter, Murillo joined that of equal excellence in flowers and landscape. All his works afford incontestible proofs of the perfection to which the Spanish School had attained, and the real character of its artists; for, as Murillo never quitted his native country, he could not be influenced by any foreign style; and this originality of talent places him in the first rank among the painters of every school. He has neither the charming dignity of Raffaele, the grandeur of Caracci, nor the grace of Corregio: but, as a faithful imitator of nature, if he is sometimes vulgar and incorrect, he is always true and natural; and the sweetness, brilliancy, freshness, and harmony of his colouring, make us forget all his defects.

Murillo founded an academy of painting at Seville, in 1680, of which he was the president until the day of his death.

Amongst the subjects which he was fond of treating, and treated most successfully, was that of the Conception, (or more properly, perhaps, the Assumption of the Virgin,) of which he produced several pictures, little varied from one another. That which we engrave is the one belonging to the gallery of the Louvre; which very closely resembles another which has lately been purchased out of the Soult collection, for the same public institution; the chief difference being in the disposal of the lights, and in the more clear development of the little angels in the upper part of the picture.

Mr. Wornum says:—"Murillo, in the latter part of his life, changed both his style and his subjects. The earliest pictures, which are painted in a forcible manner, are chiefly illustrative of humble life; his latter works, with equal truth, are in a more elevated and chaste style, and are almost exclusively scriptural or religious in the subjects." We must add that this artist is comparatively little known in this country, and the works which we have of his are not in his grandest style. There are three of his works in the National Gallery,—A Holy Family, A Spanish Peasant Boy, and St. John and the Lamb. But the finest pictures by this artist, which the country boasts of, are two in the collection of the Duke of Sutherland; viz. The Prodigal Son, and Abraham and the Angels, which his Grace purchased some years ago from Marshal Soult.

GOSSIP ABOUT BUTTERFLIES AND OTHER INSECTS.*

EUCHLÆ CARDAMINES, known as the "Orange-tipped," is another very beautiful, but not rare, white butterfly. (p. 125, fig. 6, s), the front wings of which are marked with a black spot in the centre, and a black tip, while they are richly suffused with bright orange to nearly half their depth, which is paler on the under side, and entirely absent in the females, the wings of which are, however, more strongly marked with the black tip and the central black spot, though deprived of the orange patch. The fringe, or cilia, of all four wings is marked with a black dot at the end of each vein or nervure, and the hind wings are so transparent that the distribution of the under colouring is seen through. On the under side, the front wings, at the tip, are delicately marked with green, and then become of a pale orange, fading into white; while the hind wings are most beautifully mottled with green, spreading from the veins, the veins appearing yellow.

The caterpillar (fig. 6, r) is of a rich bluish green, similar in colour to the foliage of the pink, or the carnation, becoming much darker on the back, which is very minutely dotted with black, and immediately above the legs there is a line of pure white. It feeds upon different species of *Cardamine*, to which it owes its name. The chrysalids of the whole of this genus are of a very peculiar boat-shaped form. That of this species (fig. 6, q) is at first green, but in a few days it assumes a yellowish colour, with lighter stripes.

Aporia crataegi (*aporia* of the hawthorn) is a white butterfly, comparatively rare in this country. It is destitute of the usual fringe at the edge of the wings, the place of which is occupied by a strong black vein, connecting the end of the other veins, which are also black, and much more robust than usual, whence it is known as the black-veined white butterfly (see fig. 7, n). In the female the veins are generally brown instead of black, otherwise the markings do not differ in the two sexes. The front wings, towards the edge, are destitute of the white, or rather pale cream-coloured, scales that cover the rest of the wing, and are, in this part, as transparent as isinglass.

The caterpillar (fig. 7, i), which feeds upon the hawthorn (from the generic name of which plant it takes its specific name), is very richly marked, being brown underneath, and of a rich velvet black above; the black portion being relieved by small patches of scarlet, which are dotted with deep purple, and down the centre of the back thickly powdered with white specks, the whole being slightly covered with long hairs. The chrysalis (fig. 7, j) is yellow, beautifully variegated with black.

The *Leptoria candida*, or wood white butterfly (fig. 7, k), is a delicate little creature, found in woods and lanes in the South of England, and in favourable situations of other parts. The caterpillar (fig. 7, l) is slender and attenuated towards each end. It is of a pale green, with a white stripe above the legs, and slightly hairy. It feeds upon vetches.

* Continued from page 125.

The chrysalis (pupa), fig. 7, m, is boat-shaped, like that of the orange-tipped above described. There are two broods a-year—one in May, the other in August.



Fig. 7.

(The TIGER-MOTH.—Having said so much of the butterflies, we shall now describe a British specimen of the other Lepidoptera—the Moths. This beautiful insect appears in the caterpillar state in May or June,



Fig. 8.

being hatched about those periods, from eggs deposited upon hawthorn and other plants, by the parent in the preceding autumn. The remarkable and handsome caterpillar is very common, and is found abundantly on road-side hedge-rows and in gardens. It is thickly clothed with beautiful shining hairs of rich brown and black shades, and from its furry appearance is in some districts popularly known as the woolly bear. It buries itself in the ground to undergo its change to the chrysalis, from which the perfect insect emerges in July or August,

and is generally found in a state of repose, with its exquisitely marked wings partially closed, either upon a blade of grass or some plant near the ground.

The upper wings are of a delicate but full cream colour, enriched with large patches of rich silky brown, which vary in their disposition in different individuals—sometimes nearly covering the whole of the cream coloured ground, and in some rare varieties, doing so entirely; in which unusual cases, the upper wings being wholly brown, the insect would scarcely be recognised by an ordinary observer. In other individuals, but still more rarely, the brown patches are few and small, leaving the cream-coloured ground nearly pure. The under wings are of a rich and brilliant scarlet, with large irregular glossy spots of black, which exhibit a reflection of bright purple. These spots are bordered with a narrow lacing of gold-colour, giving exceeding richness to the effect of these under wings, which are bordered with a narrow fringe of the same colour.

The abdomen is also of rich scarlet, but inclining to carmine at the sides and towards the insertion of the wings. The anterior portion of the body and head are clothed in a rich furlike wool of deep brown, in parts approaching to crimson, which give it a somewhat owl-like aspect, which, together with its slow and heavy flight, obtain for it the name of Bob Owlers amongst the children in the country. The antennae, or horns of the male are pectinated, or comb-like; those of the female are smooth; and this is a difference between the sexes not uncommon amongst the several species of moths.

Gnats and other Insects, partly Aquatic.—Although there is no insect aquatic, or living in water, in all its three stages of transformation, and none whatever in the sea at any stage, yet there are a great many species and even genera, which are aquatic or water-living in the early stages, but none in the last or perfect state. The mode of life of the larva is determined by the female's disposal of her eggs. In the case of the butterflies already described, the eggs were deposited upon the leaves of plants. In some of the moths, the eggs are lodged upon the skin or fur of the animals, upon which the caterpillar lives, to the great damage of many a costly muff, tippet, and ermine-trimmed robe. One ichneumon is provided with an instrument, such as the bee's sting, with which it pierces the flesh of a caterpillar, and at the same time deposits the eggs in its victim's body (as described in the notice of the cabbage butterfly). The instrument is called an "ovipositor," or egg-depositor. Upon the body in which the eggs are so lodged and are afterwards hatched, the larva of the *Ichneumon* feeds through its whole stage, until it has passed into the condition of pupa or nymph as before explained, and illustrated in fig. 4, p. 125. Other insects, as the blue-bottle fly—the butcher's pest—pierce with their ovipositors the flesh of the prime joints of meat, and deposit therein their eggs, from which are speedily produced the maggot which is so disgusting to housekeeper and butcher, but very interesting to the entomologist.* And there are other kinds which so dispose of their eggs, that the larva are produced in the water, for living in which they are adapted by nature, and where they pass into the state of pupa or nymph, from which the perfect insect is always developed at the surface of the water, to pass the remainder of its life an inhabitant of the air. Perhaps, the most commonly known of these amongst us, is the family called *Culicidae*, from the latin word *culex*, a gnat.

There are several species of gnats; those that swarm in clouds of a fine evening, being distinct from those house-gnats that buzz about one's

habits, metamorphosis, and general structure, of which the beautiful plumes that adorn their heads and the trunk or proboscis, with which they extract the blood, are distinctive characters—(see fig 11, x.)

The eggs of the female gnat are deposited on the surface of water in a kind of jelly, either on some floating substance or formed into a kind of raft or boat (see fig. 9, q), and are arranged in single or double rows, in a wavy line, with great regularity. The larva escapes from the egg at the bottom, and, sinking into the water, assumes the active larva-state shown magnified at c, in fig. 10, and of the natural size when full-grown (as larvæ grow), at B, in fig. 10.

The newly-hatched larva is an active and restless creature, furnished with the means of rising or sinking in the water with great rapidity, and with a wave of its tail rapidly changing its position at will; yet it has never been observed that it moves in the least its head or horns, or any portion of the forepart of its body but only, the tail; by means of the action of which, as by the single oar of the gondolier at the stern of the Venetian gondola, every variety of motion is accomplished.

The breathing apparatus being in the tail, the insect frequently brings it to the surface of the water, and, indeed, remains suspended by it. This stage of the insect is shown of the natural size at A and B in fig. 10, and strongly magnified at c. It now as gradually assumes the nymph

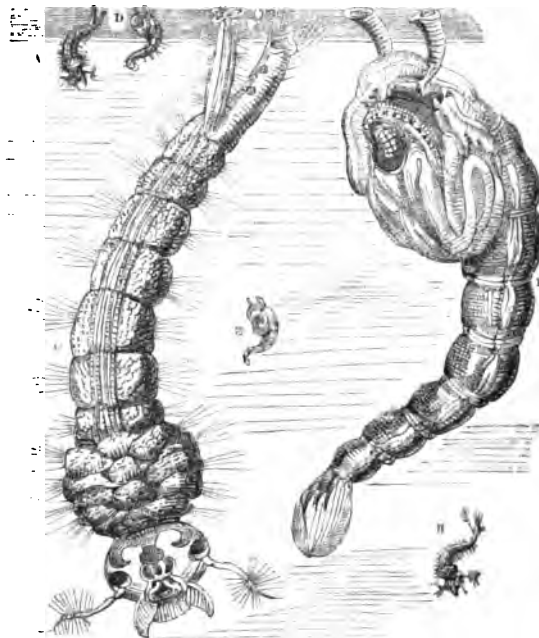


Fig. 10.

or chrysalis stage, which is shown of the natural size at D and E in fig. 10, and highly magnified at F. The most remarkable change effected in this state is the alteration of the seat of the breathing apparatus, respiration now taking place through two small tubes at the head, which causes the insect to swim with that part of the body uppermost, instead of the tail, as in its previous state.

(To be continued.)

LONDON IN THE SIXTEENTH CENTURY.

THE extent and increase of London during the reign of Queen Elizabeth caused the greatest alarm to the Government; yet in comparison with the present extent and progress of London, how idle, at a first glance, seems the fear; still when we consider the sanitary condition of London at that time, and the imperfect state of the roads throughout England, we cannot wonder at the dread, particularly as plague and famine were frequent visitors to Queen Elizabeth's London citizens. What changes have taken place since that day! what wonderful extension! and still London in 1852 is not only better supplied with provisions than in the time of Elizabeth, but also vastly improved notwithstanding our numerous abuses, in sanitary condition. In 1579 the alarm to which we have alluded respecting the increase of London, was so great that an inquisition was ordered to be taken of the number of foreigners in London, when it appeared that the number had increased threefold in twelve years. In 1567, the number of strangers in London was, Scots, 40; French, 428; Spaniards and Portuguese, 45; Italians, 140; Dutch, 2030; Burgundians, 44; Danes, 2; Liégeois, 1; in all, 2730: in 1579, the number was 8190. This increase produced a remonstrance from the Lord Mayor and Aldermen against the number of new buildings and inhabitants within the city and suburbs of London. In consequence of which her Majesty issued a proclamation, forbidding any new buildings of a house or tenement within three miles from the gate of the city, where no former house could be remembered to have stood, and likewise not to suffer more than one family to inhabit any house. The Lord Mayor was empowered to commit offenders against this proclamation, or to hold them to bail.—*The Builder*.

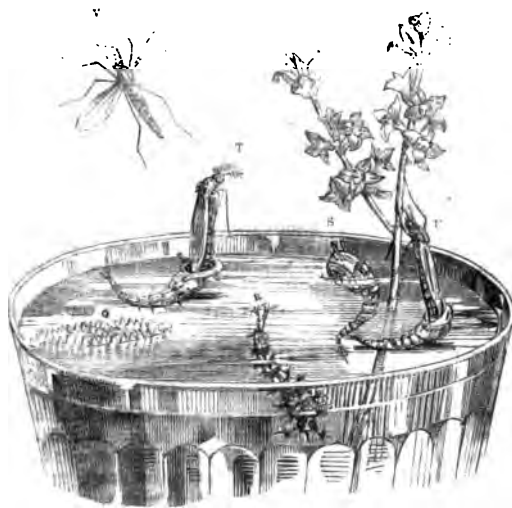


Fig. 9.

bed at night, and so vexatiously chase away sleep. In warm climates there are larger species, amongst which the formidable mosquito is the most renowned. They are all recognised as the one family by their

* The blue-bottle is vulgarly supposed to be only a large house-fly. It is a very different species. In insects, size makes a specific difference; those of one species being of one size. The different-sized flies are different species.

MARIE DE MEDICIS, QUEEN OF FRANCE.*

THE life of Marie de Medicis, the consort of Henry IV. of France, has at last had justice done to it. Dismissed in ordinary historical epitomes in a sentence or two, her biography is one of the most extraordinary character; and Miss Pardoe, assisted by the possession of a rare MS. not hitherto available as a chronicle of the events of the epoch, has been enabled to give to it interest, authenticity, and novelty. M. de la Plane, a member of the Institut Royale de France, placed at our compiler's disposal the "Memoirs of M. le Commandeur de Rambure, Captain of the Regiment of French Guards, Gentleman of the Bed-chamber under the Kings Henry IV., Louis XIII., and Louis XIV., surnamed the Great, with all the most memorable events which took place during the reigns of those three Majesties, from the year 1594 to that of 1660,"—a manuscript work suppressed by the desire of the author, who composed it, not for the satisfaction of the world, but for himself and his kindred. The manuscript is not the author's, but his secretary's, to whom the former dictated during eleven years, four hours each day—two in the morning and two in the afternoon.

Henry IV., in speculating on a second marriage, had excluded the family of the De Medicis. "The Duke of Florence," said he, to the famous Sully, "has a niece, who is stated to be tolerably handsome, but she comes of one of the pettiest principalities of Christendom; and not more than sixty or eighty years ago her ancestors were merely the chief citizens of the town of which their successors are now the sovereigns; and, moreover, she is a daughter of the same race as Catherine de Medicis, who has been alike my own enemy and that of France."

Marie de Medicis was the daughter of Francis, Grand Duke of Tuscany, and of Jane, Archduchess of Austria and Queen of Hungary, daughter of the Emperor Ferdinand. At the

time she was forced on the French monarch by Sully, the former was under the fascination of a new mistress—Mademoiselle d'Entragues, afterwards Madame de Verneuil—to whom he had moreover given a written promise of marriage. The King when he found that he had been already married by proxy to Marie, was smitten with consternation; and the reception of the Florentine Princess was most ungracious. She was then (1600) in the very bloom of life, having only just attained her twenty-fourth year, and without being strictly beautiful, possessed a person at once pleasing and dignified. All the pride of her Italian blood flashed from her large dark eye, while the consciousness of her exalted rank lent a majesty to her deportment, which occasionally, however, in moments of irritation, degenerated into haughtiness. Her intellect was quick and cultivated, but she was deficient alike in depth of judgment and in strength of character. Amiable, and even submissive in her intercourse with her favourites, she was vindictive and tyrannical towards those who fell under the ban of her displeasure; and with all the unscrupulous love of intrigue common to her race, she was nevertheless unguarded in her confidences, mistaken in her purposes, and short-sighted in her policy. In temper, she was hot, impatient, and irascible; in temperament, jealous and exacting; while her vanity and love of power perpetually made her the tool of those who sought to profit by her defects. It is probable that throughout the whole of Europe no princess could have been selected less constituted to make the happiness of a sovereign who, like Henry IV., had not scrupled to avow to his minister that he dreaded domestic dissension far more than foreign warfare; but who, at the same time, did not hesitate, by his own irregularities, to arouse all the worst passions in the bosom of an outraged wife.

On the other hand, "the indignation of Madame de Verneuil was unbounded when she ascertained that she had for ever lost all hope of ascending the throne of France; but it is nevertheless certain that she was enabled to dissimulate sufficiently to render her society indispensable to the King, and to accept with a good grace the equivocal honours of her position. Her brother, the Count D'Auvergne, was, however, less placable; he had always affected to believe in the validity of her claim upon the King; and his naturally restless and dissatisfied character led him, under the pretext of avenging her wrongs, to enter into a conspiracy which had recently been formed against the person of the King, whom certain malcontents sought to deprive alike of his throne and of his liberty, and to supersede in his sovereignty by one of the Princes of the blood."

The Monarch lost no time in determining the relations of his Queen and his mistress. The latter was instantly presented in the Court circle by the Duchess of Nemours; and the newly-made bride had to endure her constant presence and rivalry. On her arrival in Paris, she coldly returned the courtesy of the favourite, who was blazing with jewels and radiant with triumph. Not to be abashed, Madame de Verneuil kept near to her Majesty's person, and playing off in her hearing all the fascination of her wit, ultimately succeeded in converting the Queen's disgust into wonder.

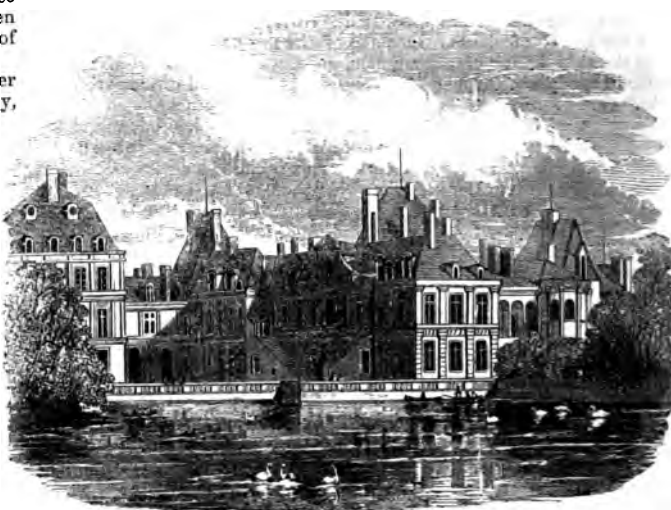
* "The Life of Marie de Medicis, Queen of France, consort of Henry IV., and Regent of the Kingdom under Louis XIII." By Miss Pardoe. COLARNS.



HENRY IV. OF FRANCE.

It was not till the 15th of February, 1601, that Marie de Medicis was established in the Palace of the Louvre, and on the morrow appeared in the costume of the French Court, somewhat modified. Like others, she wore a low dress; but her back and shoulders were veiled by a deep ruff, which immediately obtained the name of the "Medicia." It was composed of rich lace, stiffened and supported by wire, and rose behind the neck to the enormous height of twelve inches. The dress to which this ruff was attached was of the most gorgeous description, the materials employed being either cloth of gold or silver, or velvet trimmed with ermine; while chains of jewels confined it across the breast, descending from thence to the waist, where they formed a chataleine reaching to the feet. Nor did the young Queen even hesitate to sacrifice to the prejudices of her new country the magnificent hair which had excited so much astonishment on her arrival; but in conformity with the taste of the French court, instead of suffering it, as she had previously done, to flow loosely over her shoulders, or to display its luxuriant bands like a succession of glossy diadems round her head, she caused it to be closely cut, and arranged in stiff rows of thickly powdered curls.

The gaiety and grandeur of these and other Court appointments after the appearance of the Tuscan princess, was a novelty; for, owing to the previous poverty of the King, the traditional magnificence of the palace had been for a long while suspended. Now, all was festival and spectacle, gaming and intrigue—which last, at length, contrived the means of reconciling the wedded Marie de Medicis, and the favourite, Madame de Verneuil. The latter found herself in possession of a folding seat in the Queen's reception room; whereupon the Monarch himself assigned to her a suite of apartments in the Louvre, immediately above those of the Queen; and thus the wife and mistress were accommodated under the same roof.



PALACE OF FONTAINEBLEAU.

The latter arrangement naturally excited the Queen's indignation, but Madame not the less took advantage of her new position, assembling about her a little court and forming a brilliant circle of which the King was more frequently a member than of that which tended, with more etiquette, on the state of the royal consort. Nay, the favourite had even the audacity to aver that "the Florentine," as she affected to call her Majesty, was not the legal wife of the king, whose written promise still in her possession, he was bound to fulfil should she bear him a son. The accouchement of the favourite, however, was subsequent to that of the Queen. On the 17th of April, 1601, Marie became the mother of the Dauphin, subsequently Louis XIII, at the palace of Fontainebleau. As had already been the case at the Louvre, the apartments of the favourite adjoined her own. There a fortnight afterwards, Madame, in her turn, became the mother of a son, who was baptised with great ceremony, and received the name of Gaston Henry. The birth of the illegitimate son was received by the nation with as great rejoicings as that of the rightful heir. In a ballet which was got up in honour of the latter occasion, both the Queen and the mistress figured; Marie herself, as Venus, and Verneuil as one of the Virtues!

It was natural, after compromises of this kind, that the favourite should become more and more arrogant. Marie, as wife, as mother, and as Queen, was insulted and outraged. Her marital rights were invaded, the legitimacy of her son was questioned, and her regal dignity compromised. And all this the daughter of the Florentine merchant-prince was compelled to submit to, simply because she had married a king. Far happier was the peasant in her humble cot, the abode of fidelity and content.

But this is a picture of the period—a symbol of the debased morals of the nation and the Court. The vices were in the ascendant; the limits between them and the virtues were attributed by authority, not evolved from their essential nature. Did not such degeneracy portend and demand a terrible and humiliating retribution? Some letters of

mistress to the Prince de Joinville, reflecting on the royal pair about this time brought against her by the Queen; but these boldly declared to be forgeries, and the secretary of the Duke de Sully was imprisoned for the supposed crime. To be guilty in such a case was safer than to be innocent.

Attempts of the Queen to set herself right with her lord proved ineffectual; until the rupture between them grew to personal violence—ending incurring a scratched face, and the Queen submitting to the indignities of the monarch.

But the licentiousness of the monarch received no check from indignified encounters. Indeed, at the very time that she was about to become again a mother, the Queen was submitted to renewed insult. At the very time, the son of Madame, now Marquise de Verneuil was created, and the fact registered—a concession made to the vanity—the Marquise herself deemed it, to the honour—of the favourite; concession to whatever it be, which induced her to commit the most at excesses, both in the costliness of her attire and of her establishment, and in the insolent disrespect with which she uniformly treated her royal mistress, involving the whole court in perpetual misunderstanding. The Queen on this occasion gave birth to a son, as did also, soon after, the Marquise.

de Sully accomplished a temporary reconciliation between the Queen and the Queen in 1604, but it was what Miss Pardoe very aptly calls only a "matrimonial truce."



SULLY.

Meantime the Marquise conducted herself with so much imprudence, that the King directed Sully to demand from her the surrender of the written promise of marriage, which had now become in the hands of the disaffected a political instrument of annoyance. What shall we say of a political and scheming Church, when we state that at this juncture, priests were found to advocate its validity, and to denounce the subsequent union with Marie as unlawful! Letters and pamphlets innumerable were written on the subject. Even the King of Spain and the Duke of Savoy were implicated, as upholders of the pretensions of Madame de Verneuil.

All this so annoyed Marie, she foolishly wished to excite her husband's jealousy in turn; but his infatuation she was saved by the wisdom of Sully. At length the arrogant Marquise was compelled to deliver up the obnoxious document, to which she consented on condition of receiving twenty thousand silver crowns in money and the promise of a marshal's baton from her father the Count d'Entraignes, who had never been on a field of battle.

This reward she accepted; but instead of the original document it was afterwards proved that d'Entraignes had only delivered

became a prisoner in the Bastille. The intercepted letters of the Count d'Auvergne implicated his step-father, M. d'Entraignes, and his sister, Madame de Verneuil, who were both consequently arrested, the former in his castle of Marcoussis. To ascertain the exact extent of the conspiracy, the provost Defunctis, was accompanied to Marcoussis, by M. de Lomeine, in order that a search might be instituted upon the premises; when, behold! the original contract of marriage with the Marquise, was discovered by the Secretary of State in a glass-bottle, carefully sealed, and enclosed within a second, which was laid upon a heap of cotton, and built up in a wall of one of the apartments, together with, secreted with equal care, sundry letters; the treaty between Philip of Spain and the conspirators; and the Cipher, which had been employed in their correspondence: from all which, it appeared, that his Spanish Majesty had stipulated on oath, if Madame de Verneuil confided her son to his guardianship, to recognise him as Dauphin of France, and heir to the throne of that kingdom; while five fortresses on the territory of Portugal should be placed at his disposal as places of refuge, with an income amounting to 20,000*l.* English, for the support of his household. Other arrangements, both civil and military, were also stated. The Marquise, through all these trials, proved to be self-possessed and self-confident,—making conditions instead of concessions. The defiance rather amused than displeased the amorous monarch, and every feeling was absorbed in a desire to pardon his arrogant mistress; who was, indeed, after the trial and condemnation of the conspirators, recalled to Court.

As he grew older, however, King Henry treated his Queen with more respect, and grew solicitous to indoctrinate her in the craft of governing, with a view to her possible regency, hereafter. These instructions she received with any feeling but one of complacency; as she seems then to have felt but little as a Queen, and soon after still less as a wife. An unfortunate joke of the Marquise, at which Henry unwisely laughed, served ultimately to alienate her heart entirely from her husband. She had at last her triumph in the fall of her rival, who was impeached of a *liaison* with the Duke de Guise.

The infidelities of the King were not confined to the Marquise, but comprehended many other ladies. Conspiracies, also, were frequent in his reign, and more than once his life was attempted. Yet, in his own opinion, and in those of his courtiers, Henry IV. was the best man in the world; nay, he was even flattered to believe that he was "the best of husbands" also. Events had made it necessary for him solemnly to invest the Queen with the title of Regent, during his projected absence from France, in the intended crusade against Austria; undertaken for the deliverance of the Princess de Condé, though pretended for the recovery of the provinces of Franche-Comté and Flanders. Marie took advantage of the circumstance, and determined to cease to be a puppet in the hands of a faithless husband, and to make the approaching war the means of establishing her legitimate authority; and, therefore, previous to his departure, demanded to be crowned in reality, Queen of France,—a demand to which, on account of the expense, the King was reluctant; but, says Bassompierre,—"as he was the best husband in the world, he finished by giving his consent, and delayed his departure until she should have made her public entry into the capital."

Prognostics, celestial and terrestrial, preceded the fearful events that close the history of this ill-fated monarch. Many conspiracies, at that moment, were undoubtedly formed against his life. Indeed, says Rambure, "the Pope Paul V. sent him a courier express, to warn him to be on his guard, as very high and powerful ladies, and some of the greatest nobles in his court, were involved in a plot against it." The King fore-spoke his own death, as consequent upon the coronation of Marie, and Rambure adduces extraordinary coincidences in support of superstitious terrors. Cardinal Barberina, also, warned the monarch against an unfrocked monk, of saturnine temperament, born in his own kingdom, who he declared would be his assassin. This intimation, adds Miss Pardoe, was insignificant beside another, which reached Henry at the same period through the Marquis du Fresno, his ambassador at the Court of Constantinople, who was instructed by the Sultan, to desire him to take off the heads of the six principal nobles of his nation, immediately upon the receipt of his letter, and to be upon his guard against the greatest lady in his dominions, as well as against three persons who were in her confidence, whom he advised him to imprison during their lives, the whole of them being implicated in the plot. Signs, portents, warnings, all were in vain. Six months before his death, the King summoned Thomassin, a celebrated astrologer, to reveal his future destiny; by whom he was bid to beware of the month of May. The King was sceptical, on which the irritated professor predicted not only the day, but the very hour of his fate. Visions and prophecies were abundant to the same effect. The Queen, herself, had a frightful dream, in which she saw him fall under the knife of an assassin. On the very day of the King's assassination, his shield bearing his blazon, which was attached to the principal entrance of the chateau of Pau in Bearn, fell heavily to the ground and was broken to pieces; while immediately afterwards, the cows of the royal herd which had previously been grazing quietly in the park, began to low in a frightful manner, and suddenly the bull, known as "the king," rushed violently against the gate whence the trophy had fallen, then sprang into the moat, where it was drowned. The effect produced upon the inhabitants of the district was instantaneous; loud and lamentable shouts of "the King is dead!" arose on all sides, and within two hours every Bernese felt convinced that his beloved monarch had ceased to exist. We shall pursue this exciting narrative in a future number.



THE BASTILLE.

in the hands of the monarch a well-executed copy of the paper while she herself retained the original.

This was the Court of France at the beginning of the 17th century. It had been expected, these domestic discords in the palace should have been the harbinger of public conspiracies. Madame de Verneuil urged Count d'Auvergne, her brother, to one of these, for which he

Social Questions.

AUSTRALIAN GOLD-DIGGERS AND YORKSHIRE WEAVERS.

NANAN was the old proverb, "It is not all gold that glitters," more truly realised than in the golden discoveries of Australia. A wonderful change has been effected in the condition of the strong-backed gold-diggers, the storekeepers, and the innkeepers. The farmers all around the gold-fields of Bathurst, in New South Wales, and Ballarat and Mount Alexander, in Port Philip, are, as if by magic, provided with an inexhaustible supply of ready-money customers; and more than one of the owners of grants of land dating from the discovery of the pass over the Blue Mountains, which have long lain on hand unimproved, and almost unsaleable, now finds himself at the same time in possession of corn-land almost as valuable as in the best counties of England, and great goblets of gold for the gathering. But these present and eventual benefits will be purchased at a sacrifice of property in the colony, and of manufacturing pre-eminence in Yorkshire, which our keen merchants and enterprising manufacturers have only just begun to see and understand.

In 1815, our importation of wool from Australia was little more than 70,000 lb.; in 1850 this had increased to nearly 40,000,000 lb., of a finer quality than can by any care be grown in England. This large increase in the growth of Australian merino wool has been accompanied by a very considerable increase in the quantity of our own coarse British wools, and by a diminution in our importations from Germany. Indeed, we now export Australian wool to the Continent. The large supply, fine quality, and low price of Australian wool, have not only enabled our cloth-manufacturer to lower the price and improve the quality of their fabrics, but have called into existence a number of new and beautiful textiles, under the name of "merinos," "alpacos," "bareges," "mousseline-de-laines," suitable for dresses, and also shawls, which, in fineness of texture and facility of receiving dyes, rival the best products of the Indian loom, which are consumed at home, and largely exported to every quarter of the globe. It is the cheapness of these goods that gives them so wide a market: that cheapness materially depends on the low price of the raw material. The Silesian flock-owner, whose sheep have to be housed all the winter, and fed upon stored food, even if he could produce the quantity, could not afford to sell it at the same price as the Australian squatter (before the discovery of gold), whose flocks wandered the year round over natural pastures, without ever experiencing the chills of winter. But the discovery of gold—to be gathered for digging a few feet below the surface of the earth—has entirely altered and seriously endangered the position of the Australian wool-grower. Numbers of the wealthiest are now reaping the bitter fruits of short-sighted selfishness, against which they were warned in vain.

In Australia, on an average, each 1800 sheep require the care of three persons,—two shepherds to lead or follow two flocks during the day, and a hut-keeper, male or female, to cook, and watch the two flocks at night. The shearing is usually done with the assistance of itinerant bands, who traverse the "Bush" at the proper season. The care of a shepherd in these vast unenclosed plains and open forests is indispensable to guard against the attacks of the dingoes, a sort of fox; the depredations of the blacks; the chances of a fatal disease, such as the scab, foot-rot, or catarrh, which are to be caught in certain districts; and the danger of losing parts of a flock. In lambing-time, and when lambs are first weaned, extra care and trouble are needed. Sheep well managed increase seventy per cent. per annum; the average living increase of Australia has not been much short of forty per cent. It is this steady, easy increase of the exportable raw material, wool, which has enabled the Australian population to be, in proportion to their numbers, the largest consumers in the world of British manufactures. The inhabitants consume, on an average, 87.9s. a head of British manufactures; and each Australian family produces exports, according to the calculation of Mr. Leslie Forster, of Port Philip, to the extent of 87l. 10s.

The annual increase of sheep is partly restricted by the system of boiling down a certain number every year, and exporting them in the shape of tallow. To a great extent, the increase of wool-bearing sheep depends on the increase of shepherds. Except for flocks of lambs, or ewes about to yearn, any old man, woman, or child above eight years old, may be a shepherd. If the squatters had been prudent, they would long since have followed the wise and Christian example of a few who have now reason

to congratulate themselves on a line of conduct once much ridiculed; they would have preferred married shepherds, who could give living hostages for their fidelity; and they would have encouraged the plan, tardily forced upon the colonial government in the year just past, of selling, wherever available, small freeholds of fifty acres, in which frugal shepherds might invest their ample savings, and, marrying, settle and bring up a race of young shepherds—a plan not adopted until the sale of large lots had ceased for ten years. It is well known that the great squatters, who, under the high-priced land system, have had a practical monopoly of the land, have preferred a stout bachelor bush-servant, "who would draw the balance of his wages at the end of the year, spend them in a drunken debauch, and then be obliged to hire again." Men with wives and children have been abhorred, and small settlers on land especially detested.

Under the Wakefield system, which has been the curse of the labourer, and the ruin of the capitalist who put faith in it, wherever practised, our Colonial-office has permitted the selfish stockowners to dictate as to what class should be allowed to emigrate on the proceeds of the rent and sale of land, and has conspired at obstructing the frugal labourer in the possession of land.

These errors are now virtually admitted; the Government does take some pains to place wives within the reach of bush servants, and does sell small plots, thus robbing the publican of his gains. But the discovery of gold brought all the criminal shortcomings of the "protection of capital system" home to the pockets of selfish wool-growers. The wandering bachelor vagabond class of shepherds, once so much in favour, have deserted to the gold-fields *en masse*; while the married shepherds, settled in their nice cottages, with gardens, on the estates of such men as Mr. Suttor, have stuck to their duties, or amicably arranged how and when to try their luck, leaving their families to perform their shepherding. The great flockowners, or squatters, who once demanded an able-bodied, subservient serf—if single all the better, if drunken none the worse, without family ties or independent spirit—are now imploring the Emigration Commissioners to send the oldest, the feeblest, the fathers with the largest families. "Pray send us," they cry out, "some who will not want to go and dig gold—who are too old, too weak, or too fond of their wives and families to leave the ample wages, the comfortable huts, the gardens, the heifers, pigs, and poultry *we now offer*." The wool manufacturers of Yorkshire have taken the alarm and appealed in numerous deputations to the Earl of Derby and Sir John Pakington.

The appeal is late, and the consequences to Australia and to this country will be serious indeed. Fathers have been obliged to send for children from school, and set boys, and even girls, to look after their fleecy fortunes. A gentleman in the neighbourhood of Port Philip lately met with not less than six children of a wealthy squatter, on horseback, looking after flocks and herds. It will take years to repair the losses sustained in the next year, if vigorous measures be not taken to supply the vacancies in the pastoral ranks. A squatter cannot afford to pay much more than 20l. a year to a shepherd, with full rations, and 10l. to his wife for cooking for her husband; 8l. to a boy of ten years of age, with rations; viz. to each full-grown person 12 lb. of meat, 10 lb. of flour, 2 lb. of sugar, and 4 lb. of tea weekly.

If we lose our Australian wools, and we shall lose half the supply, at the value of a million sterling, very soon, without more vigorous efforts than have yet been made, we shall lose, and perhaps never regain, valuable foreign markets. The effects of the mismanagement of emigration will soon be felt in Yorkshire.

Pauper emigration will never pay—emigrants of the right class are not to be draughted out like short-horns or South Downs. You cannot take a father and mother and reject two or three children, or accept children and reject parents. You cannot apply an arbitrary gauge of trade, or age, or country, as the Emigration Commissioners do, if you want a perpetual stream of self-supporting emigration. You must induce the labouring classes to take up emigration for their own good, not for the good of their masters. All industrious people of frugal temperate habits will make good emigrants. A little help, a little courtesy, a little kindly paternal advice—not patronising, but sympathising—that is what is needed to save Australian sheep-owners and Yorkshire manufacturers, and to make a great pastoral desert a populous and prosperous empire. Government emigration is a failure, and something of a job: *dilettante* emigration is too costly to do much. As an example of what great colonial experience, large common-sense, deep knowledge of human nature can do, with small means, the parties interested in Australian wool had better turn to Mrs.

Chisholm, and the 7000l. paid into her Family Colonisation Society's fund by the working classes. If we only show the way, prepare good ships, and explain the advantages, thousands of the working classes will pay their own passage much more quickly than any great Government scheme can be arranged and floated to its usual failure.—*Illustrated London News*.

The Fine Arts.

TRUE AND FALSE PRINCIPLES OF DECORATIVE ART.

THIRD LECTURE BY MR. OWEN JONES.

MR. OWEN JONES's third lecture was devoted to the explanation of the true principles of decoration as regards furniture and house ornamentation generally. He started by asserting, as a general rule, that our education in science had of late been shown to be lower, our advancement in industrial art smaller, than in foreign countries. In sanitary reform also England kept the background, though the want of it was calculated to produce rapid degradation of race with which would gradually depart every lofty aspiration. Whilst we were thus losing ground in sciences and industry—whilst our race was being diminished in size—it was equally a melancholy truth that we declined in art. In England the highest of the land felt the want of education in art. If you wanted in this country to decorate your floor, you went to an upholsterer's, who, putting down a pattern, recommended it as being most fashionable, and lately patronised by my Lord A. The pattern, of course, might be worthless; but the desire to imitate Lord A. had already seized Lady Emily B., and you, being told of this, could not help imitating such laudable examples, and the result was that a most vicious circle was established, out of which it becomes impossible to escape. He (the lecturer) recollected reading a theory once propounded by Mr. Babbage, according to which every sound that man uttered travelled round about and through the universe without ever resting again. He had often fancied, on musing over this theory, that if these sounds were made to assail bad spirits in those lower regions to which it is said bad spirits go, the punishment would be great indeed. Supposing that the eye instead of the ear were to be thus attacked, by laying before Lord A. and his imitators all the horrid choices they had ever made in Decorative Art, it would be punishment adequate to many sins. As matters now stand, it was lamentable what monstrous things we were in the daily habit of seeing in the streets, in the shape of omnibuses, cabs, and such like, which, if it were possible, he would render subject to the vigilance of an artistic police. The Egyptians never permitted any but beautiful forms to be produced by their workmen; and when these were admitted none others were tolerated. So it was also with the Mahometans, who have to this day preserved their old-established forms; for there, form, like dress, is under the protection of religion. This, indeed, has been a main obstacle in the way of intercommunication between the Arabs and Europeans. There was no need for such a law against bad taste here, nor could it be established; but he thought that it was a case in which it behoved every one to act. It was the duty of all literally to put their house in order, for there all reforms must commence. First of all let your nurseries be reformed; let the wretched paper toys and ornaments with which the taste of your children was vitiated in its infancy be abolished, and let their education in art no longer be downward instead of upwards. If children were taught early to see beauty in forms, their taste would be improved; and he insisted that none but pure forms should be left before the eye of the rising generation, which would then have a daily growing sense of beauty both in form and colour.

The lecturer then entered on the subject of stained paper, and said that the art of paper-staining was neglected not only in England but in France, and everywhere else; the only difference being, that ours were poorly, and the French cleverly, executed. But the more clever the execution the more glaring the faults. The great rule to be followed in the decoration of wall surfaces was, that nothing should be done to disturb their flatness. Yet this rule was invariably violated in modern apartments, where strawberries and cherries were to be found profusely clustering out of the same stalk. Those who thus ornamented their wall had after all no more serious intention in view than to use these forms as a means of distributing colours over a surface; but he contended that that was a result which could be attained without such vicious means. Nothing, indeed, showed this so clearly as the Gothic papers and Indian tissues, the principles of which, common to

both, if adapted to the wants of the present day, would infallibly lead to a new and original style. As he had before remarked, all direct representation of natural objects on paper must be carefully avoided, because paper should merely serve the purpose of background and never be obtrusive to the eye, and the object should be, therefore, to obtain a neutralised bloom on the surface of the wall, colours being duly apportioned in their proper places. Of course, different colours suited to predominate in different places: green suited lobbies and staircases; grey for dining-rooms, and the gayest hues for the drawing-room, gold being introduced and interwoven in such a manner as to produce a just balance. It had been a long established custom to confine floral patterns to bed rooms: in truth, these should be the very last patterns that ought to be chosen for these rooms. The secondary and tertiary colours should here be used, and an engraving nicely framed and hung on the wall would be found a most pleasing substitute for floral ornament. The practice of imitating wood and marble on a large scale was also one which was much abused. Imitations of this kind were only allowable when the employment of the thing imitated would not be inconsistent. There was no objection, for instance, against graining a deal door in imitation of oak, for by that the mind would receive a satisfactory impression; but such would not be the result were the door painted to imitate marble. It was appropriate to paint like marble the pilasters and ground of a hall, but to make the entire hall appear of marble would be inconsistent. The upholsterers' work was also a great ingredient in the ornamentation of a house; but, like the architect, nowadays, he had abandoned a share of work belonging to him to other hands. It was from the upholsterer that we obtained our furniture and our carpets. Now furniture should, as a general rule, be suited to the object for which it was applied. Use should in all cases define its form, and no ornament should be added to it without reason. Ornament in direct imitation of nature must, therefore, be avoided, because those objects would in such situations be in a place unsuited for them—not their own, in fact, and incapable of affording permanent pleasure to the eye. Ornamentation here, as in other cases, would be found best carried out by a sort of conventionalism. A curious instance of this was to be found in two sculptured lions which might be seen at the British Museum—one the Nineveh, the other the Prudhoe lion. The latter was remarkable for its close imitation of nature, but in the Nineveh lion's repose a more permanent pleasure was excited by a more conventional and quiet treatment of the mane of the animal.

It would be found that light woods bear more carving than dark, and the same fact would be found applicable in the ornamentation of marble chimney-pieces, of which the darkest would be found to bear least ornaments. An example of this was visible at the Great Exhibition in the much vaunted Austrian furniture department. The carved furniture was objected to at first, by a few persons, who disliked the profusion and ill-taste of the ornaments, on the dark-veined wood, but the mass of the public admired and were pleased. Gradually, the effect of pleasure wore off; the rooms, which in the first period were crowded, became thinned; admiration declined; and, at last, there were as few admirers of the Austrian furniture, as there had been detractors at first. A great mixture of styles was objectionable in carved ornament; it was a fault that was almost always found in modern furniture. Not so in the Egyptian chairs, where the lines were admirably curved, and ornaments made subservient to use. The Egyptians, one might see by these mighty examples, used to recline on their seats, unlike the Assyrians, who considered it dignified to sit bolt upright.

As regarded curtains and draperies, the general effect to be sought was breadth of fold and colour. As regarded the latter, it was important that curtains should give additional force to the colour of the room. They might be in contrast or in unison. If the walls were rich in colour, the curtains should be simple, and vice versa. This was a rule too frequently violated. In curtains, all shaded patterns or horizontal lines must be avoided, for they did not assist the idea of loftiness which curtains ought to convey; but the best and safest patterns were diaper, the colour not extending to the edge, but relieved by a border, which gave them finish and prevented the eye from wandering. Curtains, too, should be suspended from poles with large rings, allowing the light of the windows to reach the ceiling, a result unattainable if those ugly things, cornices, were used. As for the covering of the furniture of the room, he insisted that it could not be too quiet. The difficulty seemed to be to keep in order the wandering fancies of lady-friends, who spent their hours in devising many-coloured patterns in Berlin wool; and it was certainly

a growing nuisance that made people sit on uncomfortable bunches of flowers, or unfortunate puppy dogs. Light woods would be found best in conjunction with light-coloured stuffs, and dark with dark coverings; and this rule applied to the dress and undress appearance of modern furniture. Nothing, at this time, was more difficult than to get proper chintzes for covering furniture; the fittest patterns being those which were not manufactured—namely, diapers of a neutral tint, suited by its hue to forming the complementary tint in the colours of the room. Of carpets much had already been said; but, in general, they should be the darkest part of the furniture, and the colour in them should be most broken up. The more thinly furnished the room, the lighter should the carpet be. Turkey carpets had always been considered the proper things for dining-rooms, but few of them were really fitted for that purpose. In the East the carpet was on a raised dais, and cushions were placed around, so that the middle of it was free and seen at a glance. The pattern of the carpet was contrived to meet that end; but in England we conceded the very portion of the fabric which the Easterns intended to keep most in view,—this being another instance of our transplanting from one country to another objects entirely unsuited to other purposes than those for which they were originally intended. It is a fact, that the more perfect we have become in the manufacture of carpets, the worse has been the taste for their ornamentation become. The ordinary Kidderminster carpet, having but two colours, cannot go far wrong. The Brussels, into which five colours can be introduced, gives rise to glaring errors. Tapestry carpets are still worse in this sense, but a climax is attained in printed carpets, where the abuse of colours becomes positively criminal.

Mr. Owen Jones, having entered largely into these details, concluded his lecture by some general considerations as to the harmony necessary in the furnishing and adornment of a house as a whole. The visitor should, as a rule, be impressed, on entering a house, with the taste and character of its inhabitant. The rooms should be adorned on a regular ascending scale, and all the show should not be, as in Richardson's booth in Greenwich Fair, placed outside. The idea adopted at the Symposium of all nations, of making each room characteristic of different countries, was a false one, for it would of necessity require the inhabitant to have a different dress for each room. In dining-rooms there should be no pictures, or, if there were, they must be few, and of the rarest kind; no plate glass should be placed over the chimney-pieces there, but the ceiling might be made more than usually elaborate, as the guests have more time and leisure to examine it. As for the drawing-room, its ornamentation depended much on the colour of the walls and the general aspect. The walls should be flat, whatever you hung upon them, for panelled walls were not calculated to give permanent pleasure. Diaper patterns in panels and gold mouldings were what he should most recommend. Mere white and gold, which was a common mode of ornamentation, were, in his eyes, cold and cheerless. If plate glass were used, it should be let into the walls, not framed in the way that was now most usual. The prevailing fashion was to have too much furniture, and this was a fault which he could not sufficiently deprecate.

In conclusion, he hoped that the public would see the necessity of being alive to the melodies of colour. It was too much to expect of them to acquire the more complicated difficulties of harmony; but at the present moment they knew not even the commonest melody, and in this the public and patrons of Art were alike, the result being that artists did not respond to any but a vicious taste.

Miscellaneous Notices.

THE LARGEST SHIP IN THE WORLD.

The Windsor Castle, now on the stocks at Pembroke, is not only the largest line-of-battle ship in the world, but the largest vessel that has ever been built. She is many hundred tons larger than the Great Britain, the Himalayah (now building at Blackwall for the Oriental Steam Navigation Company), or the gigantic American steam-ship the Pennsylvania. The Himalayah is 3200 tons burden—200 tons larger than the Great Britain, and the Pennsylvania is larger by 100 tons than the Himalayah. The Windsor Castle, however, beats them all, for she measures 3759 tons. She was originally intended for a 120-gun ship, but will be pierced for 140 guns, the alterations recently made in her affording accommodation for that number of cannon. Her length from the fore part of the figure-head to the after part of the tailrail is 278 feet 6 inches.

Between the perpendicular 240 feet 6 inches. For keel, for tonnage, 202 feet. Her extreme breadth is 60 feet, and for tonnage 59 feet 2 inches. Her depth of hold is 24 feet 8 inches. The Windsor Castle's original length was 210 feet. She has been lengthened in midships by 23 feet, just the length required for two additional ports, and abaft by 7 feet 6 inches. The midships length will give increased space for engines, boilers, and coal, whilst abaft room has been given for the insertion of a screw propeller. The midships lengthening was effected by cutting the ship asunder at dead flat, or the midship section, and launching the after half, weighing about 2000 tons, the distance of 23 feet, an operation which was successfully performed on the 3rd of last February, in an hour and a half. This gigantic specimen of ship-building will be launched at the fall of the present year.

ANCIENT COINS AND MODERN CURRENCY.

It is a curious feature in some parts of France that custom permits money payments of large amounts in copper currency. Rouleaux of "browns" are made up into bags, which are tied up and labelled and pass as 100 francs. Everybody knows the clumsy French penny pieces, which nobody keeps longer than is necessary; but few would think that these are not the only copper coins that pass current in France. In the departments of the centre and south of France where these 100 franc groups of copper money are made up, coins of Faustina, Antony, and Marcus Aurelius, are frequently commingled to the amount of 10 francs at times. These pieces would not be taken were they to be offered in exchange for a cigar or apples, but in a mass like 100 francs they pass current. This Roman money has been in circulation chiefly since the great revolution, and first became of value during the run of the "assignat." The Prince President of the French republic having determined to make a new copper currency to supersede the present one, the result will be the withdrawal from circulation of these Roman coins, which will then be of value only to the numismatist.

DISCOVERY OF A SKELETON IN ARMOUR.

A perfect skeleton enclosed in a complete suit of armour, was discovered a few days since in the ruins of a wall lately taken down, which formed part of the Conservatoire des Arts et Métiers in Paris. The armour, as well as the skeleton, are in preservation as perfect as their age, five centuries, will permit; for it is supposed that they are the remains of Jacques Legris, a knight, who in the 12th century was unjustly accused of an outrage upon the virtue of a lady, la Dame de Carouge. Jacques Legris was vanquished in a trial by the sword with the husband of the lady on the 20th December, 1376, at the lists of the Abbey of St. Martin des Champs, now the Conservatoire des Arts et Métiers, and was instantly led to execution. The really guilty person exculpated Legris subsequently, and his name was what the French call *réhabilité*, but the body never could be found.

SALVAGE OF A BRONZE COLOSSAL STATUE.

A curious tale has happened the colossal bronze statue of Gustavus Adolphus, which was recently cast in the royal foundry of Munich for the city of Hamburgh. Wrecked on the coast of Heligoland, and recovered by the inhabitants from the sea, the salvors have claimed from the municipality of Hamburgh such an exorbitant amount of salvage, that rather than pay it the latter have preferred abandoning the statue to those who fished it up, and casting another for themselves from the model yet existing in Munich. As the pilots and fishermen of Heligoland, who have thus over-shot the mark, do not know very well what use to make of a huge statue of Gustavus Adolphus, the streets of Hamburgh are placarded with announcements that it will be sold in that island on the 10th of July. The announcements state that it is in excellent preservation, save that the point of the sword is broken off. The absence of the sword-point would be a very significant want in a statue of Gustavus Adolphus. —*Athenaeum*.

STEAM NAVIGATION IN AMERICA.

A petition has been presented to the American Congress by a person professing to be acquainted with steam navigation, who believes that he can construct an ocean craft which can neither be burnt nor sunk even if stove against icebergs or rocks, nor blown up by its boilers, and which will average, in a voyage across the Atlantic, fifteen miles an hour, and he will undertake to build the vessel provided the Government will remunerate him in case of success. He asks Congress to make a provision, giving him and his associates, or their legal representatives, the sum of one million of dollars upon condition of his producing such a vessel within five years from the passage of the Act, to be adjudged and reported on by a committee of five disinterested

persons to be appointed by the President, on whose decision the Secretary of the Navy is to pay the money. The plan is, that the vessel is not to be less than 4000 tons, 40 rods long, and six wide; to draw only from five to six feet of water when laden. She is to have two sets of boilers and engines, and four pairs of water wheels; is to be of iron entirely, with

zinc finishing; the keelsons, ribs, &c., are to be of plate iron, corrugated where proper, and made airtight, forming air-chambers. The floors or decks are to be double, having sectional air-chambers throughout, as will also the portions of the ship, including those forming the state rooms, cabins, &c., thereby rendering it impossible for her to sink. She is also to

be subdivided by water-tight partitions. Although five years are asked, the memorialist says he can accomplish the work in two; and although the condition of speed is fixed at the moderate (!) rate of fifteen miles an hour, he has no doubt of accomplishing an average of from 20 to 25 miles per hour!!! besides having her shot-proof.



LAUNCE AND HIS DOG.—FROM A PICTURE BY T. F. DICKSIE.

"LAUNCE'S LECTURE."

This very spirited little picture is by one of the best artists in the *genre* line of the day. It successfully and happily illustrates that most amusing episode in Shakespeare's Play of the "Two Gentlemen of Verona," where *Launce* lectures his dog, *Crab*, upon all his mal-practices, and reminds him of all he has suffered in his behalf:—

"*Launce*. When a man's servant shall play the cur with him, look you, it goes hard; one that I brought up of a puppy; one that I saved from drowning, when three or four of his blind brothers and sisters went to it! I have taught him—even as one would say precisely. Thus I would teach a dog. I was sent to

deliver him, as a present to mistress Silvia, from my master; and I came no sooner into the dining-chamber, but he steps me to her trencher and steals her capon's leg. O, 'tis a foul thing when a cur cannot keep himself in all companies! I would have, as one should say, one that takes upon him to be a dog indeed, to be, as it were, a dog at all things. If I had not had more wit than he, to take a fault upon me that he did, I think verily he had been hang'd for't; sure as I live, he had suffer'd for't. * * * I'll be sworn I have sat on the stocks for puddings he hath stolen, otherwise he had been executed; I have stood on the pillory for geese he hath killed, otherwise he had suffered for't; thou think'st not of this now!"

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THE DEATH OF TEWDRICH.—SCULPTURE.—BY J. G. THOMAS. (SEE PAGE 147.)

JAPAN AND THE JAPANESE.*

WE have recently treated a part of the subject of the Indo-Chinese and the country of Siam. The publication, however, of Captain Golownin's narrative, from which we have already cited the most interesting story of Lieut. Feodor Moor, (*ante*, p. 86), presents us with an amount of information concerning Japan which must not be withheld from our readers. Sir Francis Davis, too, in his just published work on China, adds some chapters on the Indo-Chinese nations, which much extend the knowledge we have already derived from Mr. Neale's revelations, (*ante*, p. 54). It is our duty to make our subscribers acquainted with the state of every question up to the time of writing.

The first European ship that ever reached Japan was a Portuguese vessel in 1584; but the Jesuitical visitors that came to trade and preach, behaved themselves so ill, that the Emperor Teigo prohibited the teaching of Christianity, and resolved to extirpate it. No individual in Japan may dare publicly to profess Christianity. In regard to the knowledge possessed by the people in general, Captain Golownin boldly pronounces them to be "the most enlightened nation in the world." That they are one of the most humane, his own narrative fully proves. Nearly every individual is able to read and write, and knows the laws of his country, which are seldom changed, and the most important of which are publicly exhibited on large tables in the towns and villages, in the public squares, and other places. In agriculture, horticulture, the fishery, the chase, the manufacture of silk and woollen stuffs, of porcelain and lackered goods, and in the polishing of metals, they are not inferior to Europeans. They are also well acquainted with mining, and understand how to make several works in metal. In the arts of cabinet-making and turning they are perfect masters; they are, besides, admirably skilled in the manufacture of all articles belonging to domestic economy. Several common soldiers with whom the captain became acquainted showed an acquaintance with geography, astronomy, geometry, and medicine, though, in the latter, they are decidedly superstitious. With the modern policy of European states they are well enough acquainted; and the delight of the lower order of people is to read historical books relating to Japan. Foreign manners they are prohibited from adopting.

With respect to Europe, the captain observes that they have been called our moral antipodes. While they consider the colour of mourning; black that of joy. They mount a horse on the off-side, like the Arabians; they wear habits of ceremony in the house, but lay them aside on going out, and salute the foot instead of the head or the hands. All, of every rank, are exceedingly polite, and observant of the minutest courtesy. They seldom quarrel, never use abusive language, and carry on their disputes with a wonderful degree of moderation and temper.

There are numerous sects of religionists in Japan; but only four principal religions:—1. The aboriginal, now much corrupted—a sort of hagiolatry, of which the Spiritual Emperor of Japan is the head. 2. The Brahminical. 3. The doctrine of Confucius, derived from the Chinese, and followed by their men of learning and philosophy. 4. Star-worship. Free-thinkers, also, exist in Japan, but their number is small.

The Spiritual Emperor (or Kin-Rey) is, as we have suggested, the head of the ancient Japanese religion; but all the other sects piously cherish a veneration for his person, which, by the way, is kept *invisible* to all classes of the people, except the individuals of his own household and the officers of the Temporal Emperor (for the Japanese have *two* Emperors), who are frequently sent to him. Once a year only, on the occasion of a great festival, he walks in a gallery, which is open below, so that everybody can approach and see his feet. He always wears silk garments, which, from the very first preparation of the silk, are manufactured by the hands of virgins. Each of his meals is brought to him in new vessels, which afterwards are broken. Should any one eat out of the same vessel after him, either knowingly or by mistake, he would be immediately put to death. The Japanese priesthood is divided into many classes. They have high priests; also monks and nuns, convents, orders, and rules. Priests committing criminal offences are tried and punished by the temporal power.

To the Temporal Emperor the Spiritual is, in fact, actually, though not nominally, subject. The Kin-Rey has no share in the ordinary affairs of state, though, in extraordinary cases, the Temporal Emperor makes a show of consulting him. On such occasions the Temporal Sovereign takes his measures betimes, and knows beforehand that the Kin-Rey will approve of his proposals. Submission and humility to him, as once in Europe to the Popes, are feigned in order to blind the superstitious people. Great respect is outwardly manifested. The Temporal Emperor visits the Spiritual once in seven years; but they frequently send embassies to each other, on which occasion the Temporal Emperor always sends rich presents, which are acknowledged by blessings. The revenues of the Kin-Rey are confined to the principality of *Kioto*, a province which he governs as an independent prince (or *Damjo*), but without soldiers. The two Emperors observe with the greatest exactness the etiquette that prevails between them. Capt. Golownin was told that the present dynasty of the Kin-Reys (for the office is hereditary) has governed in a direct line for 2113 years. It commenced therefore six hundred years before Christ. In these twenty-four centuries there have been about 130 Emperors, according to Japanese history. At the beginning they held undivided power; but

about 230 years ago, a military chieftain usurped the imperial authority, and made the administration of temporal affairs hereditary in his family.

There are eight classes of Japanese—*Damjos*, or reigning princes; *Chadamodos*, or nobles; *Bonzes*, or priests; soldiers; merchants; mechanics; peasants and labourers; and slaves. A Japanese by law can have only one wife, but as many concubines as he pleases, who live publicly and altogether in one house with the lawful wife and the husband, who may separate at will from the wife without being bound to give any reason. Fathers accordingly demand sometimes a large sum of money for permission to marry their daughters. The negotiations for a wife, the betrothing, and the marriage, are celebrated with costly ceremonies. The teeth of the bride are blackened with some corrosive liquid, and remain black ever after, serving to show that a woman is married or a widow.

As might have been expected, much care is devoted to the education of children. They instruct them early in reading, writing, religion, the history of their own country, and geography; and when of a proper age they are taught the art of war. But what is more important, children are taught from their earliest youth the value of patience, modesty, and politeness; virtues of which our travellers experienced the fruits. To be loud in dispute is considered rude and vulgar.

On the great questions of intercourse with foreign nations, the Japanese appear to be inflexible. Commerce and war, in their opinion, are inseparable yoke-fellows; and to avoid the latter, they yield the former. In a word, they consult their ease and happiness, and are, indeed, always good-humoured and cheerful. They are fond of lively conversation and jesting; sing at their work, and perform it to the measure of a tune. Music and dancing are their delight, and they are inventive of musical instruments. They are also dramatically inclined, and possess a theatre: their drama is historical. Pleasure-boats and yachts, magnificent and expensively built and furnished, afford them also frequent recreation; they are, indeed, Epicureans to the letter.

The difficulty that Europeans find to trade with the Japanese is mainly due to the misconduct of the Jesuits, which inspired them with a wholesome terror of all foreigners. Japanese ships can now only trade to Corea, and the *Loo-Choo* Islands. The Dutch, indeed, trade with the Japanese, but on such hard terms as place them in the condition of prisoners during their mercantile intercourse. The Chinese have more licence. The harbour of *Nangasaky*, in the south of Japan, is the only one that is open to the Chinese, as well as to the Dutch. Their mode of trade is by barter. The Japanese have no fleet, only a few merchant vessels, with one great mast and an immense sail.

It may, perhaps, be reserved for the gold-digging fever in California and Australia to modify the commercial system of the Japanese, and to abolish its restrictions. It will be hard to prevent the people of an over-populated country from following the Chinese in the pursuit of wealth. The Americans also have resolved on opening the harbours on the coast, and compelling them to welcome the spirit of modern enterprise. The war that the Japanese fear would follow the encouragement of commercial intercourse may precede it; and then their greatest objection to its permission would be overthrown. With a people so enlightened our acquaintance could not fail to be beneficial; and the advantages we have to render in return would necessarily cement the friendship once commenced, and establish a permanent good understanding between us and them.

It is the opinion of Sir John Francis Davis—who, as her Majesty's late plenipotentiary in China, and Governor and Commander-in-chief of the Colony of Hong Kong, may be cited authoritatively as a most distinguished writer and diplomatist—that ere long, one railroad across the Isthmus of Suez will connect the Mediterranean and Indian seas on the East, and another railroad between *Chagres* and *Panama*, now in progress, join the Atlantic and Pacific oceans on the West. When, says he, "the entire circumference of our planet is thus open to steam and rail, and a girdle can be put round about the earth in little more than a hundred days, it will be hardly possible for such countries as Japan, *Cochin*, *China*, *Corea*, and *Siam*—notwithstanding their sullen system of seclusion—to remain long unopen to a busy, inquisitive, and progressive world." "Already," he adds, "are hundreds of Chinese being transported from Hong Kong to California; while some shipwrecked Japanese have been conveyed back from Mexico across the Pacific, westward."

Sir John Davis's volumes bear but poor testimony to the military skill of the Chinese, with which the author considers that of the Japanese to be much on a par. The nature of their defences betrays the most perfect ignorance of artillery; and there is little chance of their opposing an effectual resistance to any adequate attack from a powerful civilized nation; and, therefore, much hope that Japan may return to the liberality it was accustomed to exercise before the misconduct of the Jesuit missionaries led to the jealous practice of exclusion in regard to all, save the Dutch.

We may here add to the statement above made, some details as to the peculiar kind of intercourse held by the Japanese with the Dutch. The latter, in order to gain the privilege, had to assure the former of their being of a different religion from that of Rome, and to prove their words were compelled to trample on the Cross. With Rome, previously, Japan had been diplomatically related,—an embassy of seven persons having been sent to Rome, who, in 1585, were present at the coronation of Pope Sixtus V., and did not return to Japan until 1590—an absence of eight years.

To secure their trade with the Japanese, the Dutch have all along

* "Japan and the Japanese." By Captain Golownin. 2 Vols. Colburn & Co., 1852.

submitted to the strangest indignities. They assisted at the siege of Simabara, whither about 40,000 Christians had fled for refuge, and in a fortnight battered the town with 426 balls; and have always submitted, during their commercial visits, to a sort of imprisonment in the island of Desima, a place raised from the bottom of the sea, and about 236 paces long and 82 broad. A small stone bridge joins it to the town, with a strong guard-house at the end. The Chinese themselves are treated by the Japanese with nearly the same jealousy and indignity as the Dutch; and their trade is subjected to severe restrictions, between the ports of Nangasaky in Japan, and Chapoo in China.

Sir John Davis tells us, that the Japanese system is not one of exclusion only, but inclusion of the Japanese themselves also. "No Japanese ship or boat whatever, nor any native of Japan, shall presume to go out of the country. Those who act contrary to this shall die, and the ship with the goods on board shall be sequestered. All Japanese who return from abroad shall be put to death." In 1837 an American ship, the *Morrison*, sought to restore seven shipwrecked Japanese to their country, and were repaid by great inhospitality.

The recent growth of the whaling trade in the Pacific has caused a much more frequent resort to the coasts of Japan, and some collision between the American whalers and the Japanese Government. The rising trade, also, between California and Hong Kong, from which latter place the Chinese proceed in crowds to the New Dorado, must end in either opening European intercourse with Japan, or greatly increasing the pains of the Government to prevent it, without being compelled, like the Dutch, to purchase a miserable privilege by personal degradation. The Hollander, it seems, was obliged to crawl on his hands and knees to a spot shown him, between the presents ranged in due order on one side, and the place where the Emperor sat on the other; and thus, kneeling, he bowed his forehead quite down to the ground, and so crawled backward like a crab, without uttering a single word.

The subject of the Indo-Chinese nations is one of great interest; and like all oriental countries, involved in great mystery. Of these, Cochin-China, or Annam, geographically intermediate between the Chinese and Malays, seems also physically and morally to be similarly situated; suffering under a despotism in the hands of a monopolist. This place Sir John Davis visited, and met at first with the greatest distrust, but got on better on better acquaintance; only, however, in the way of civility, for no practical result was possible. The party suffered much from the rain, which, in Cochin-China, comes down in a solid cascade, and from the typhoons, which blew hurricanes. Siam is connected with China by means of a lucrative trade and Chinese colonisation. Our armed visit was beneficial, it seems, both to Annam and Siam, by removing the shackles which fettered their commercial intercourse.

In respect to Corea, not Japan itself is a country less known to Europeans. Some political relation it has with the Chinese Empire; but we have no means of judging of it but through Chinese books, and occasional notices in the *Pekin Gazette*. The submission to China is more complete than that of any other tributary country; even the king is regularly installed by an Imperial Commissioner, and cannot marry without an express sanction from Peking, nor undertake anything of great importance without the Emperor's approbation; and the country itself, equal in area to the British Islands, though so secluded, is obliged to send tribute-bearers very frequently to Peking, to do homage to the Son of Heaven, and receive his behests. Matter for reflection here: wherefore the British Islands themselves, though no larger than Corea, should maintain the proud distinction of sovereignty not attainable by the Coreans? However, they do maintain, after a fashion, their independence; for the country is governed entirely by its own officers, and intercourse between it and China is absolutely prohibited. No junks from China cross the Yellow Sea to visit its numerous islands and harbours, and the only trade is carried on at the Manchow frontier town—*Pong-hwang*. Not being allowed to visit any foreign country, the small vessels of Corea are miserably constructed, and, if driven by stress of weather from their own coast, generally lost. The country has not benefited, like others, by the new trading regulations which resulted from the opium war, being prohibited foreign intercourse, even with the coast of China. Corea thus remains isolated, with a government and people who must have been, we may suppose, almost brutalised by ignorance during an imprisonment within their own borders of more than two hundred years. The Corean coast is still a perfect *terra incognita*. Two French war-ships were lost there in 1817.

Corea was visited, in 1845, by Captain Sir Edward Belcher, who also in the same year made acquaintance with Loo-Choo, an island where the voyagers were civilly received, and with less reserve than expected, being permitted to walk through the town. It is situated midway between China and Japan, and connected with the latter by a string of islands, being thus subjected to and claimed by two different masters; whence is attributed the timid caution displayed by these islanders in all their transactions.

THE DEATH OF TEWDITCH, KING OF GWENT.—BY J. G. THOMAS.

THIS spirited group in sculpture (see front page) illustrates a very interesting passage in Cambro-British history,—the death of Frederick, King of Gwent, at the moment of victory over the Saxons, near Tintern Abbey, on the Wye. "The wounded king is represented after his having fallen in the battle, urging on the pursuit of the flying Saxons, attended by his only daughter, Marchell, and an aged bard, who is in the act of proclaiming victory." ("Liber Landavensis," p. 383).

HUNGARY IN 1851.*

TO those who believe in the patriotic feelings of the Hungarians, in the earnestness of their struggle, in the fixity of their hatred to Austria, and in the popularity of Kossuth, the reading of Mr. Brace's Hungary, in 1851, will be balm and consolation. As in the consideration of popular questions there is always a revulsion in public opinion; so in the case of Kossuth, who was regarded as a hero by the mass of the people of England, it has become the fashion to detract from his fame as a patriot and a statesman, and to insist that his popularity in Hungary was never as great as was at first supposed. The testimony of unprejudiced travellers tends, on the contrary, to show that the feeling of the Hungarians is still for freedom; that Kossuth is still the idol of the people; that so far from having lost partisans, that renowned leader has gained them, and that he has swelled the adherents to his cause by the addition of numbers of the Wallach race, who, impelled during the war by the bigotry of their priests and their own ignorance, fought like desperados against the generals of the national parliament. It further appears that, since the Austrian rule has been put in force, and the ancient constitution of the kingdom abolished, those very portions of the Hungarian aristocracy, who either held aloof from the national cause, or took an active part against it, are as much, if not more discontented, than those whom the cabinet of Vienna fancied it can oppress by right of victory.

Mr. Brace had great difficulty in getting into Hungary; but, overcoming the scruples of the police, he succeeded in getting to Pesth, and thence into the interior of the country by rail to Szolnok, on the Theiss, and up that river into central Hungary. At Pesth, which of old, was the most brilliant and lively city in Europe, where the parliament met and called together the most talented men throughout Hungary; where the hotels were best, strangers most numerous, society most refined, and social circles most pleasant, the streets were deserted. The place is lifeless, says our author:—

"No equipages are seen. The Hungarian costume is forbidden. The noblemen of Hungary, the men of talent and wit, the leaders of the nation who once filled the city, and gave the life to its circles and drew business within its wall, are now scattered abroad as exiles through every land, or are living in gloomy and insecure retirement on their estates. Business has utterly flagged. No one has any confidence in the continuance of the present condition of Hungary. The stream of communication which once poured over the bridge is now meagre enough. It is calculated by candid people that the population of Buda-Pesth, once some 120,000, has diminished full 50,000! Strangers seldom visit it now, or if they do, have no heart to stay in a place where every foreigner is under the spying eyes of a police agent."

Notwithstanding their depressing influences, society was pleasant enough in Pesth; there was still a stormy life and eloquence about the people's conversation; jokes against Austrian stupidity went like lightning through the city, and the theme of every tale was Hungary, its glory, its wrongs, and its hopes. Madame Modersbach, whose flogging brought such retribution upon Haynau at Pankside, still resided there in a half-crazed state, nor were her countrymen sparing in the account of her misfortunes. As Mr. Brace wandered on through Hungary, he found that the same feeling existed in favour of the national movement. Stumbling on an intelligent farmer from the neighbourhood of Szolnok, and asking him what was the feeling of the Hungarian peasant towards Kossuth at that time, Mr. Brace elicited the following reply:—

"He said that it was impossible to imagine the devotion—the love of the people to him; in his exile and disgrace they remember him with prayers and tears. The poor creatures, some of them, think that he was inspired from Heaven, and they talk of him as if he was their prophet, when they meet; and they believe he is coming with the spring under the earth to free the land! They pray for him in their houses, and though his picture is forbidden, most of them have it concealed. He is almost worshipped."

"This passionate attachment," he said, "arose partly from the wonderful eloquence of the man; and then," said he, "every peasant remembers what Kossuth's government gave them. Under that, for the first time, the Bauer could choose their own rulers. They had elections for their judges and Bürgermeister. They could vote for their representatives to Parliament. To be sure, some of them had had these rights before; but the majority had never possessed any share in the elections for the National Assembly. Then, under Kossuth, they began for the first time to be independent, free landholders. They knew how long he and his party had been striving to make men of them, and when at length he succeeded, of course they were grateful. But it was Kossuth's sympathy with them—Kossuth's eloquence, as he spoke of freedom and the wrongs of Hungary—which helped all this influence."

"The Austrians, on the contrary," continued the farmer, "have taken away everything which the Bauer had under the Hungarian Ministry. Instead of being allowed to elect their own magistrates, the petty town-clerk is appointed by the Austrian Military-Board. All the chief officers of a town are either foreigners, or appointed from men whom they despise. They have no voice or hand in the matter."

* Hungary in 1851, with an Experience of the Austrian Police. By C. L. Brace. London. BENTLEY.

The taxes, too, are heavier and more vexatious than ever the old Robot was. Then there are a thousand little annoyances, which remind them



PORTRAIT OF KOSSUTH.

continually that they are not at all under a government which would make them freer. They cannot shoot even a crow without an 'order'



HUNGARIAN WATER-CARRIER.

from Government. They must have a *passé* to go to the next village; soldiers are all the time watching them, or interrupting them. Every

Hungarian, too, has from time immemorial had the privilege of grumbling, to any extent he desired. Now, at a word against the Government, he has the gens-d'armes after him. The truth is, the Austrian Government has gained nothing among the peasantry. It might, perhaps, have won them—but it has lost them now utterly."

Although the Hungarian habit was prohibited, still the people showed their antipathy by rejecting the black hat of the Austrians, which by a strange denomination they called *gat gesinute*, (well-disposed). The instances were frequent where the down-ground and bespied peasants ventured to give their opinions in favour of Kossuth. At a town in the Heves Comitatus, the views of a healthy landowner, upon the present state of Hungary, were elicited in the following manner, which serves to prove what we have already said as to the Hungarian aristocracy being discontented with the government of Austria which they upheld against Kossuth. This gentleman—

"Was a portly man, who had lived and grown fat all his life on the labour of others, and who of course took strong 'conservative' views of all questions. Our conversation soon turned to political subjects. I inquired how the freedom from Robot, i. e. from feudal labour, among the Bauer, had worked in that neighbourhood? 'Badly, very badly, sir,' said he; 'the proprietors are almost ruined—they have lost everything. Their peasants are not obliged to work for them, and will not, except for very high wages. I have large estates in Siebenbürgen (Transylvania) now, which scarcely pay their expenses. When that Bill for emancipating the peasants from rent had passed the Parliament, I said at the time—I was a Member—that the Government was bound to make restitution. And afterwards, when the clause was added in the resolution of the House, that the State would pledge itself to give remuneration suitable to its honour, I told the House that it was all too much mere phrases. We wanted a more exact promise; as it is, we have received nothing. Many a man has lost his all. Most of them expected some kind of restitution; but thus far they have not had a kreutzer. The Government now promises, according to its plan, to make good a third of the loss; but it has not been done yet, and we fear never will be done.'

"I asked farther some questions about the taxes and the present policy of the Government. Conservative as he was, he could not conceal his bitterness. 'They have taxed everything,' he said; 'my house, garden, crops, my wine, and the tobacco in my fields; and even my wife and my servants must pay their poll-tax. I consider the Government most unfortunately advised. No one in office understands the character of the people. As things go on now, there is danger. They must change. The present state of things cannot continue. And, for my part, I confidently hope soon for a change of policy.'

"This man, as I have said above, represented an important class—the wealthy landholders and the magnates, or lords, who stood aloof from the mass of the nation in their struggle. They were never respected before the Revolution, and since, they are in a more unpleasant situation than ever. The people despise them, and the Government turns the cold shoulder on them, so that they live quite by themselves on their estates."

Nowhere, however, did Kossuth's eloquence find such a passionate response as among the farming peasants of the Hungarian plain; through the villages of central Hungary scarcely a peasant would be found who could carry scythe or sword, who did not march out at his call to join the Hungarian army. The results of Austrian rule visibly throughout the country, were such as are here described in relation to a single village.

"Wherever we visited, whether at his Majesty's officers', or in the houses of the common people, we heard the same account of burdensome taxation, of stupid legislation by the Government. Not a man, even of those who received the Emperor's pay, seemed contented. They declared that the object of the ministry was completely to blot out the last traces of the old independence of Hungary. All their internal Municipal Constitution, so cheap, so efficient, which they had enjoyed for more than five hundred years, was utterly destroyed. The pettiest town-officer was appointed by the Government, and all the higher officers were either foreigners or such Hungarians as no one had ever respected. Every possible means was used to extort money from them by taxation. They were taxed personally; taxed for their garden; taxed for their house; for their wine; for their tobacco. Every deed drawn up must be on taxed (stamped) paper. Their passports were taxed; their very permits to raise taxed tobacco, which they themselves are not allowed to use, must pay a duty; and all at the worst of times, when they were stripped of their property by the war, and when the peasants especially lost millions by the Kossuth notes, which the Government, despite its promise, never yet redeemed at even a part of their value.

"The result of it was, that in this village, I was assured, every man was limiting his liabilities in every possible way to be taxed. The amount of wine made there the next year, would be the least possible which they would want for themselves. In tobacco, from which the Government had expected the greatest revenue, knowing the universal habit of the people, the yield will be the smallest ever known. The law, in regard to tobacco, is so exacting, and the duty so heavy, that it will scarcely repay any farmer to sow the seed. In one district around that village, they said, where formerly were five hundred tobacco plantations, there are not now five!"

It seems to be a mistake to say that the peasant in Hungary is a Slavon, and the noble exclusively Magyar. Amongst the peasants

subject till lately to feudal burdens, and amounting in number to a million and a half, many hundred thousands were Magyars; but whilst these and the Slavon peasants favoured the movement, the Wallachs, as we have said, favoured Austria.

"The peasants in Siebenbürgen, or Transylvania, both Wallachs and others, appear to have been more harshly treated in former times than in other parts of Hungary. Perhaps in that mountainous region the masters were farther from the reach of law. The fact, too, that the Robot-burdens in their fullest extent existed there, may have added to the oppression. The peasantry besides were of the most bigoted Greek Catholic belief, and allowed by their priest the least possible education, so that in all respects the masters and servants were the widest possible from one another, and the least likely on either side to be governed by good principles in their dealings towards one another.

"The Hungarians will not allow it, but I could not but see, in the fearful Carib-like atrocities of the Wallachs there towards their old masters, the Magyars, during the last war, a reaction, a passionate revenge for the heavy oppression which very probably existed there previously. These atrocities were punished, and terribly punished, (for the Wallachs are great cowards,) by the Hungarians. War existed there in 1849 in its most revolting forms. The Wallachs hung clergymen, and the Hungarians in return shot priests by dozens. The Wallachs burned the women and spitted the children of the Magyars; and they revenged themselves by destroying the Wallachian villages from the very face of the land. The country now looks like a desert, it is said, compared with its former appearance. This was really the only part of Hungary where there was a peasant-war that year against the masters; for in other portions of the country the peasants formed quite as efficient and patriotic a corps in the army as any other class."

The Wallachs show their degeneracy in their villages, which, compared with those of the other Bauers, whether Magyar or Servian, are dirty and poor to a degree, only comparable with those of the Irish cottier. Nor were the Wallachs at all equal in physical development to the Magyar, their faces being thin, nervous, and fallow, their foreheads low, and eyes cunning in expression. Their flaxen hair also marks the difference between them and the Magyar.

The peculiarities of Hungary, the wild grandeur of its plains, and the characteristics of its people and manners, were all marked by Mr. Brace. Szolnok, which he describes, has the usual character of other Hungarian towns:—

"Szolnok itself is a genuine Hungarian village, forming a singular contrast to the modern European Pesth. It always has seemed to me in walking through Hungarian villages, as if one could see in them, as in a thousand other things in the land, the signs of their Oriental, nomadic origin. The houses seemed placed exactly as a company of Huns or Tartars might have pitched their tents; each house, in the most populous village, separate, with its yard and trees about it, and bearing no particular relation in its position to any other house. The streets consequently wind about in the most entangling manner.

"Every house, too, is not much higher than a tent, never more than one story, though of course much longer than our rustic dwellings, to give room for the inmates. The consequence is, that their villages occupy an area about four times the extent which our own do, with the same population. The town of Debreczin with 55,000 inhabitants, and much more city-like than the most of the interior towns, is spread around over a space of ground greater than that of Boston, in the United States, with its 136,000 inhabitants. In a Hungarian village there is no grass or shrubbery in the streets, and the spectacle, wherever a broad street occurs, is of a wide tract of bare ground, with high wicker-work fences on each side, behind which are a row of low, white, neatly kept houses, with their trees and shrubbery around them. In wet weather, the vista is varied, by the streets forming one immense mud-hole from one end to the other."

Here is a description of a Hungarian granary:—

"We stopped at a little spot well covered with branches of dead trees. One of the Bauer, at the order of the gentleman, removed these, then some boards, then shovelled out some loose dirt, and there was disclosed a hole, about the size of a man, leading down to a cave underground. This seemed to be about six feet high, as many broad, and perhaps ten feet long, and is used to store the wheat for winter. It is made with a curved picking instrument which they have for the purpose, and the top is carefully rounded. The whole is rendered dry and hard by burning it out, after which dry straw is strown within it. The wheat stored in these by the Bauer will sometimes last twenty years. The great advantage is in the saving of building-material, wood and stone being so difficult to get here. I could not believe they could prevent the dampness from oozing in, after some of their long rains. My friend, however, seemed to think them excellent. One of the party, on the other hand, thought that more grain was lost than saved by them. They say that the Russians acquired a preternatural sagacity in detecting these underground granaries among the peasantry in their campaign here in 1849."

Of the jokes against the Austrians, which Mr. Brace tells us flew about Pesth with such gusto, here is a specimen:—

"A juggler was on the stage before a crowded house, and among other tricks, took a silver zwanziger (a coin which, like all other silver or gold pieces, has mostly disappeared from Austria) in his hand, held it up before the crowd, opened his hand, and the coin was gone. He had hardly proceeded thus far in the performance, when a rough voice,

in the broad Vienna accent, came out of the gallery—'Ach, das kann ik auk!' (Pooh! I can do that too!) The juggler then turned his hand again, muttered some incantations, opened it, and there was the zwanziger. The voice again came, in the most hopeless tone—'Sacrament! das kann ik nit!' (That I can't do!) The juggler turned, at this second exclamation, to the gallery, and asked who it was that interrupted him so. 'The Austrian Finance Minister!' replied the



PORTRAIT OF HAYNAU.

voice in doleful tones. The audience took the joke at once, and rose with one universal cheer for 'the man in the gallery.'

Mr. Brace got no further than Grosswardein in his peregrinations, as



HUNGARIAN SHEPHERD.

he was there arrested by the Austrian police, who after some considerable period of imprisonment, released him. For this interesting portion of his narrative, we advise a perusal of the book.

WORDS IN SEASON.

"BUY A MOSS-ROSE!"

WITH all due and proper reverence for discoveries and discoverers in general, we confess we are not inclined to look upon the individual who first found out that "one swallow doesn't make a summer" as another Solomon; if, instead, he (or she, as the case might have been), had affirmed that one rose-bud—one moss-rose bud—*docs* make a summer, we—we are not, at the moment, prepared to say in what high degree of esteem we should have held him or her. We profess an universal love for anything and everything in the shape of a flower,—that is down, down to chickweed; but the rose—the moss-rose, is our floral Queen. We have a whole world of delightful associations in connection with that lovely flower, into which the "indulgent reader" will, perhaps, very readily forgive us for not admitting him. For one quarter—the sweetest and brightest quarter of the year—it serves for our calendar; and we hope we shall not be considered as very odd or fanatical in our notions, if we say that nothing can ever induce us to believe that summer—true summer—has arrived, until we have been solicited, within sound of Bow bells, to "buy a moss-rose." Solicitation, always comfortable to our ears, which we never decline. At last, then, in spite of the anti-flowery weather which has so long prevailed, (we had almost said *reigned*), here before us, bows the beautiful, the modest, flower of our preference!—"agal," summer is at length about us. Hail summer!—thy glorious sunshine; (thy picnics and lobster salads)—thy—we will not give way to rhapsody, though; but, instead, wish everybody joy of its glad arrival, and everybody's button-hole a sweet odourous proof of its presence,—a wish which would seem to admit of realisation, (in some degree, at least), if Mr. Mayhew's estimate of the number of moss-roses sold annually in the streets of London be tolerably correct: he makes it, in round numbers, 864,000.

After all that has been said and sung—good, bad, and indifferent—about the rose, we despair of saying or singing anything new that may not smack too strongly of one or other of the two latter qualities; we therefore, boldly declare our determination not to attempt either. But, failing any unadorned gems or golden sentences of our own, we will give you, gentlest of readers, a versified version of Krummacher's beautiful parable of

HOW THE ROSE WAS FIRST ADORNED WITH MOSS.

I.

THE Angel that attends the flowers,
And through night's mystic hours,
When bud and blossom bow in slumber deep,
From breath-like hovering wings
The jewel dew-drop flings
On the mild heads o'er which he loves to keep
His tranquil watch, one sunny day
Of glorious sweet summer, lay
Under the shadow of a rose, asleep.

II.

His slumbers o'er, the Angel bright
Arose, an inward light
Of nameless yearning gentling his great eyes;
"Thou loveliest flower!" he cried,
"If, in thy blushing pride
Of modest beauty there be any prize
Of power grace or charm more fine
Than comeliness, it shall be thine
For thy sweet shade and tender perfume'd sighs."

III.

"Dear Angel," said the happy flower,
"Oh! give me then the power
To hide the blush that on my bosom glows."
"Sweet wish!" the Angel said,
And o'er her bosom spread
That mossy veil 'neath which her charms repose.
O Woman! graced so lovelily—
For ever in your beauty be
As modest, simple, as the bright moss-rose.

C. S. C.

PHILLIP'S PICTURE OF "DRAWING FOR THE MILITIA."

THIS clever picture (p. 157) exhibits a scene common in the last century, which the new Act for calling out the militia may revive. It is full of character, heightened by the quaintness of the costumes of the period. Here are the several phases of the "drawing," and the turmoil and excitement incident to such a scene. The episodes are striking and in good keeping; the medical examination and the measuring of the rustic, newly taken from the plough-tail; the little groups in gossip; the struggle for entrance at the doorway; with a host of other life-like touches, render this a very effective picture.

THE TIDE OF EMIGRATION.

AUSTRALIAN GOLD FIELDS.

THE tide of emigration having now set in in earnest towards the new land of gold, and what is better than gold, of health, and plenty, and independence,—Australia,—we fancy we shall be performing a useful service to those whose circumstances in the parent country may be of a sort to render a change of scene matter for deliberation, by giving, in a series of articles, as much practical information upon the subject of the colonies in question, and the means of getting there, as we may be able from various sources to collect.

Beginning at the beginning, we have to inquire

WHO OUGHT TO EMIGRATE?

And upon this very important point we cannot do better than quote the observations of a very intelligent man, of long practical experience in these very fields of enterprise, namely, Mr. J. B. Earp, in a very useful little volume on "The Gold Colonies of Australia," recently published. The poor, the destitute, the man who has nothing but his native-born industry to recommend him,—a recommendation which, unfortunately, has too commonly gone for nothing in a plethoric state of society, where it was cheaper to pen up and dry-nurse paupers than to employ labour; the poor we say have now the first and brightest chance in this great social movement. And well and thoroughly may they profit by it is our most earnest prayer. Yes, labour, so long a glut in the market, so long despised, is now at a positive premium; for, says Mr. Earp:—

"If means be not adopted, and that speedily, to throw a larger quantity of labour into the colony than will be likely to go to the gold mines, the wool produce of Australia will cease for ever, and with it the wool trade of England; so that the poor have now a chance of getting that done for them from self-interest which has not hitherto been considered an object of national importance. England has hitherto neglected that system of national emigration which ought to have been the safety-valve of her policy, and she is now reaping the first-fruits of want of national foresight in the destruction of one of the most important branches of her commerce."

With respect to the occupations open to him when he gets to Australia, Mr. Earp says:—

"The poor man will, on his arrival in the colony, find that his labour is at once in demand, at highly remunerative rates; not, perhaps, at those which, from the scarcity of labour, are now demanded, for these cannot last without destroying the means of employing labour—the value of no produce would bear them. But he will find instant employment, at rates far beyond what he has been accustomed to in whatever portion of the country he may land. Australia is emphatically the poor man's country. The capital of the labourer and the mechanic—viz., the strong arm, combined with skill—are always wanted, and produce an immediate return. The State may have been supine in not having before removed him from a land in which his strong arm and skill were of secondary importance, to another portion of the empire which required both, but he will at length have the chance of removal, and at a time when both are in greater demand than ever. Even if he do not possess skill, the deficiency is a trifling one; he will find plenty of people willing to pay him handsomely whilst he is acquiring experience, and he will for ever have escaped from penury—toil without adequate remuneration—physical discomfort—and a thousand annoyances to which he now wakes every morning only to find them realised before night.

"But the advantage of being duly remunerated for his toil, is only the beginning of the career before him. If prudent, he will soon find that he is in a condition to exchange toil for comfort, and from the very first to combine the two. This will be succeeded by independence, not in the English sense of the word, but the independence of being perfect master of his own time and actions, having plenty of his own, and being under no obligations to others. Many poor men make fortunes, and especially by the lottery of gold-finding, in which the strong arm is superior to the clear head; but let not the poor man at home expect this: if he find it, so much the better: and so much the sooner can he remit part of his wealth home, to enable his still poor relations to join him, and again set up the household gods in company.

"To prescribe to the labouring man what he can do on his arrival in the colony is impossible. The writer who would so prescribe is a quack. Suffice it that anything he cannot do he can learn, and be well paid for it whilst learning. Next to gold, the produce of the country is pastoral: in this the agricultural emigrant is skilled; but the fact of not being skilled need not deter the veriest cockney from emigrating with the intention of pursuing a pastoral life. Under the old system of convictism, the favourite shepherds amongst the stock-farmers in New South Wales were London pickpockets, for whom there was always a contention, on account of their superior shrewdness and activity. The London clerk, porter, mechanic, will make none the worse shepherd for not having been transported. A late writer thus sums up the class of shepherds in his district:—'An apothecary, a lawyer's clerk, three sailors, a counting-house clerk, a tailor, a Jew, a Portuguese sailor, a Cingalese, a barman, a gentleman's son, a broken-down merchant, a former lieutenant in the East India Company's service, a gipsy, a black fiddler, and a dancing-master.' The best shepherds were the gentleman's son, the Jew, and the barman. And such men are liked better than the regular-bred English shepherd, who has in general

the two bad qualities of never obeying orders, and always knowing better than his master. No poor man, in any class of life, should ever suppose that he does not know enough for the duties of an Australian shepherd. The situation will, in every case, soon teach him those duties, as will also his employer, for his own sake. If he has a wife, so much the better; she is as well qualified for a hut-keeper as he is for a shepherd, and will be taken together with him, thus increasing his wages, and doubling the chance of getting a flock of his own.

"If the emigrant intend to follow any trade with which he may be acquainted, it will be useful for him to know what trades are most in demand. If he be not one of these, let him quit his trade, and turn shepherd. The following are the principal mechanics in request:—Brickmakers, bricklayers, stonemasons, blacksmiths, and carpenters, rough cabinet-makers, miners, shoemakers, tailors, sawyers, and generally all trades which contribute to the comfort of man and his dwelling, with the exception of painters and decorators. Skilled trades, as engravers, jewellers, watchmakers, silversmiths, &c. &c. are not in request; all such must turn shepherds, or they had better remain at home: all may, however, go: flocks and herds are a never-failing resource, and an immediate one. Skill will soon come; and all the most unskilled emigrant requires to advance himself are—industry, intelligence, and a determination to succeed. Till within the last few years, Australia has risen to its high position chiefly by the aid of convicts, skilled in nothing but robbery, but possessed of enterprise and energy. It would be strange if free men, gifted with the same good qualities, and devoid of the bad ones, should doubt that they, too, can succeed, however deficient in pastoral skill.

"But it is not merely the positively poor who are in request. To the middle class, the field in Australia is illimitable. These possess small, yet sufficient, capital, and usually education—in other words, the means to succeed, and the mental requirements which further success. The great difficulty of this class is, in general, the dislike of breaking up family connexions, and the consequent repugnance to leave their country. But where is the use of staying in the face of adverse circumstances? From this cause alone, family connexions break themselves up without emigration. The well-to-do tradesman has no family recollections whatever of the ill-to-do;—his memory on this point is certain to become deficient, and the latter act unwisely to remain between the wind and his vulgarity; a few years may enable them to look down upon him, when, in his turn, his capital too, is staked upon some blundering speculation, perhaps—has taken to itself wings, and flown away. If one thing is more uncertain than another, in the middle-classes of England, it is that of even a life of arduous labour being rewarded in the end by permanent family prosperity. In England a man may rise up early, and eat the bread of carefulness, but from our complicated commercial system, or from other causes, with all his industry, and all his care, he may find that he has all his life been only laying up poverty for his old age. This is not so in colonies: there the industry of men founds families; here it but too often breaks them up. The patient scrapings of an English life are often scattered by circumstances over which the gatherer has no control. In colonies they go unmo-

lest to his descendants, unless he prefer the excitement of speculation to industry.

"At the present period, when flocks are becoming comparatively valueless, from the want of labour, which has fled to the gold fields, there are excellent chances for a man with a thousand pounds or two, to get a sheep-run on favourable terms. If two or three persons, possessing even less, were to join in such a pursuit, it would form a partnership of a highly profitable nature, provided the parties could depend on each other's probity and industry; for in New South Wales it is highly requisite that partners should pull the same way. A person, even with half the above sum, may profitably invest it in cattle in a manner which will enable him to look about him. It is common

enough in Australia for a man to purchase cattle, and agree with a stock-farmer to keep them at his own expense, receiving one-half or two-fifths of the increase, and of the profits of butter and cheese. Thus, both the stock and the profits of the investor are going on while he may be otherwise employed, or may be waiting for a suitable location, or may be acquiring the necessary experience to enable him to commence stock-farming on his own account. It is also common to place cattle with a farmer who has a good run, at the rate of sevenpence or eightpence per head per month, he finding all labour, and thus the foundation of a herd may be laid, which will speedily repay its outlay as well by profits as increase. The former of these plans, where the capital is insufficient at first to enter upon a run, will, in a few years, enable the possessor to accomplish his original intention, if he steadily adhere to it. Even in this way dairy-farming, stock and horse breeding, are very profitable modes of investment, and are free from many dangers which beset sheep-farming. Numbers of the wealthiest men in Australia have risen from less beginnings than these."

Other occupations will suggest themselves to every man who has a common-sense notion of society and its requirements. Where wealth

exists, it must be spent, exchanged for the necessities, the comforts, the luxuries of life: shopkeepers of all sorts, handicraftsmen of all denominations, talent in all its branches, from that of the dancing-master, or musician, who helps to while away our idle hours, to that of the attorney, who draws deeds of transfer, agreements, or a last will and testament, must all, before very long, be in requisition. We shall return to this branch of the subject on a future occasion. Meantime, let us quote in an abridged form, a few words of advice to the intending emigrant.

HOW TO SET ABOUT EMIGRATING.

"Now for how he should set about emigrating, supposing that he has made up his mind to go.

"We will first of all suppose him to have little money, as is commonly the case with precisely that class of men which the gold colonies want, and which would succeed best when there, viz. the enterprising, but without opportunity to display their enterprise. These are the men who succeed best in colonies, not those who imagine a shabby-genteel appearance, which is only laughed at, to be one of the first requisites of ambition.

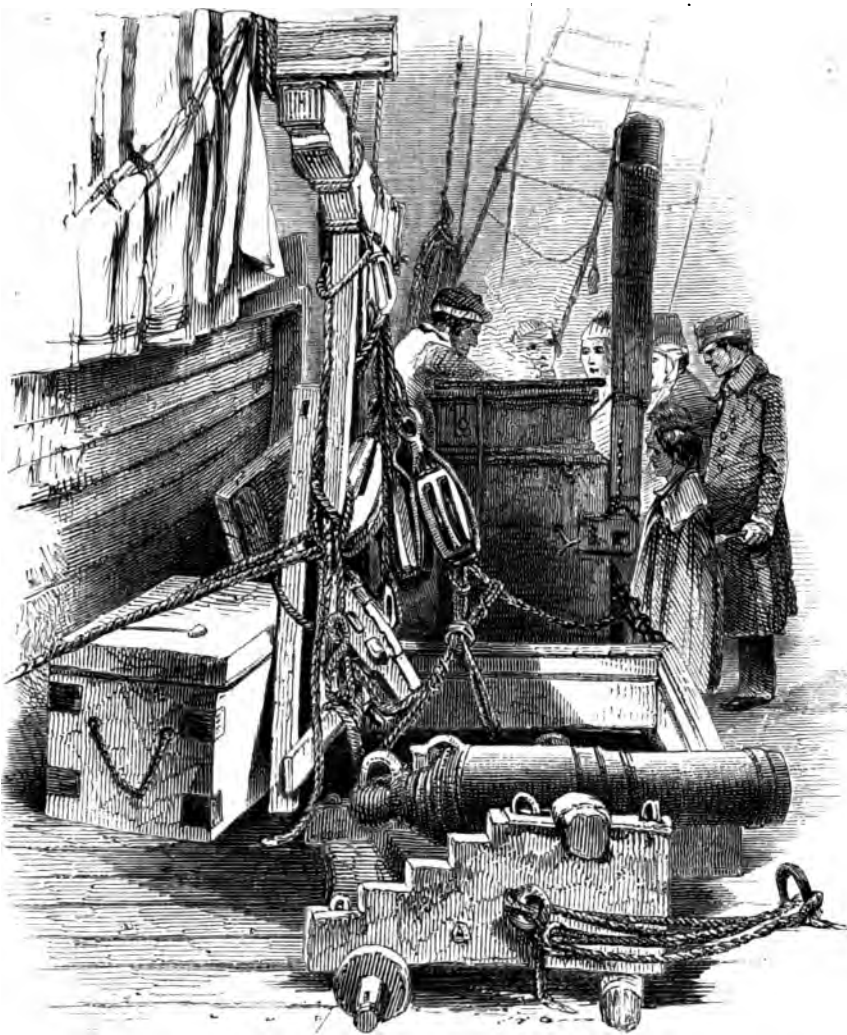
"It may not be known to all that in the Australian colonies there is a



THE DECK OF AN EMIGRANT SHIP.—"THE TEA-WATER."

land-fund, which is annually set apart for the purpose of procuring emigration from the mother country. This fund is entrusted to the government at home, and is administered by her Majesty's Land and Emigration Commissioners, who, as is usual with government authorities, contrive to abuse it very much, as will be evident when we tell the reader, on the authority of the Colonial Secretary of State, that upwards of 300,000*l.* of the colonists' money is at present in the Treasury, *unused* for the purpose for which it was sent, but that it remains to be used, and that the government shows symptoms of using it in earnest. We will now tell the emigrant how he may avail himself of this fund, sent solely for the purpose of procuring healthy emigrants of good character.

"Let him write to S. Walcott, Esq., the Secretary of the Government Land and Emigration Commissioners, at No. 9, Park-street, Westminster, and he will, or ought to, receive the terms on which passages are granted to agricultural labourers, shepherds, herdsmen, female domestic and farm servants under forty-five



years of age. All these are required, to pay a deposit of *one pound* per head; and they will have to fill up certain papers, which will be forwarded to them, relative to attestation of character, &c. Country mechanics—those of towns having little chance of being accepted—must pay a deposit of 2*l.* per head. Single girls, under eighteen, cannot be accepted, unless under the protection of their parents. These sums provide bedding and other necessities for the voyage, the Government giving the passage free. And let the emigrant remember, he is under no obligation for this fund. It is not alms, but money sent by the colonists, to provide what is to them the first necessary of life, viz., additional labour. When the emigrant himself becomes a land-purchaser in the colony—and it will be his own fault if he do not become one—he will have to contribute to this fund, for the purpose of bringing out other labourers.

"Those with little money may apply to the Family Colonisation Society, at 29, Bucklersbury. The advantage to be met with here is that they may pay for their passage by weekly or other instalments.



SCENES ON BOARD AN EMIGRANT SHIP.—1, THE COOK'S GALLEY. 2, DANCING BETWEEN DECKS

They get it also cheaper, and are equally well fed with those in the Government ships. Those who are ineligible from age or occupation in the latter, may get out by means of the former.

"Those who can pay at once for their passage should go to a respectable broker—*never to an agent*—but to the party whose name they see advertised to the ship itself. The agent cannot be, under any circumstances, of the slightest earthly use to them. They will have to pay more for their passage on his account, as the shipbroker gives the agent a commission, which the emigrant's common sense will tell him is charged to his own pocket in one shape or other.

"Let him also be careful in the selection of his ship, and see that it stands A 1 at Lloyd's. This is usually stated in the advertisement. Some ships are employed, which, from their age and condition, are what is termed on the red diphthongs, i.e., they are characterised by the diphthong OE in red letters. These are safe enough, as far as their holding together is concerned, but if the emigrant have a well-founded horror of vermin of all sorts, from rats and mice to the minor annoyances of the bed and wardrobe, let him keep out of second-class ships, or he may have amusement on the voyage which he did not bargain for. It is impossible to keep these things out of the ship, and the older it is, the more they abound. Plenty of A 1 ships are always on the berth, and if, after our warning, he sail in any other, he will have no lack of by no means pleasant occupation during the voyage."

Reference having been made to a "Land Fund," we now give, for the use of those who may think of purchasing land, a statement of the regulations for the sale of land in Australia, out of which that fund accrues:—

SALE OF LAND IN AUSTRALIA.

The following are the regulations now in force under the provisions of the Australian Land Act, 5 & 6 Vict., c. 36, for the disposal of the Waste Lands in the Colonies of New South Wales (including the Sydney and Port Phillip districts, and any other districts that may hereafter be opened), South Australia, and Western Australia.

1. All lands are disposed of by sale alone, and must have once at least been exposed to public auction.

2. The lowest upset price will not be less than 1*l*. per acre, but the Government will have power to raise the same by proclamation, though not again to reduce it.

3. The lands are distinguished into three different classes; viz. town, suburban, and country lots.

4. Upon town and suburban lots, as well as upon a proportion not exceeding one-tenth of the whole country lots offered for sale at any auction, the Governor will have the power of naming a higher than the general or lowest upset price; the country lots on which such power is exercised to be designated "Special Country Lots."

5. Town and suburban lots will in no case be disposed of except by public auction; but country lots which have already been put up to public auction and not sold, may be disposed of afterwards by private contract at the upset price.

6. No lands will be sold by private contract except for ready money.

When sold by public auction, one-tenth at least of the whole purchase-money must be paid down, and the remainder within one calendar month, or the deposit will be forfeited.

SCENE BETWEEN DECKS.



7. Lands will be put up for sale in lots not exceeding one square mile in extent.

8. As an exception to the general regulations, and subject to certain restrictions laid down in the Australian Land Act, the Governor will have it in his discretion to dispose, by private contract, at a price not less than the lowest upset price for the district, of blocks comprising 20,000 acres or more.

9. Persons will be at liberty to make payments for colonial lands in this country, for which payment or deposit they will receive an order for credit to the same amount in any purchase of land they may effect in the colony, and will have the privilege of naming a proportionate number of emigrants for a free passage, as explained in the next article. The deposits must be made in one or more sums of 100l. each, at the Bank of England, to the account of the Colonial Land and Emigration Commissioners; and the depositor must state at the time the colony in which the land is to be selected, and give notice to the Commissioners of the deposit. Upon production of the Bank's receipt for the money, the Commissioners will furnish the depositor with a certificate, stating the amount which he has paid, and entitling him to obtain credit for that sum in any purchase which he may effect in the colony, subject to all rules and regulations in force in the colony at the time such purchase may be made.

10. For every sum of 100l. deposited as above, the depositor will be entitled, for six months from the date of payment, to name a number of properly qualified emigrants, equal to five adults, for a free passage. Two children between one and fourteen are to be reckoned as equal to one adult. The emigrants are required to be chosen from the class of mechanics, and handicraftsmen, agricultural labourers, or domestic servants, and must be going out with the intention to work for wages. They are to be subject to the approval of the Commissioners, and must, in all respects, fall within their general regulations on the selection of labourers. The purchaser and his family cannot receive a free passage under this privilege.

THE PASSENGERS ACT.

After the emigrant has chosen the ship by which he will sail, and perhaps run the gauntlet through scores of designing and unscrupulous "man-catchers"—persons who get a commission from the passenger-brokers for each emigrant they bring to the office—he must bear in mind that by the New Passenger Act, 12 & 13 Vict. c. 33, (which has been amended by the Act 14 Vict., c. 1.), no passenger-ship is allowed to proceed until a medical practitioner, appointed by the emigration office of the port, shall have inspected the medicine chest and passengers, and certified that the medicines, &c., are sufficient, and that the passengers are free from contagious disease. The master, owner, or charterer of the ship is bound to pay the medical inspector the sum of 1l. sterling for every 100 persons thus inspected. When the emigrant and his family have undergone this process, their passage-ticket is stamped, and they have nothing further to do, until they go on board, but to make their own private arrangements and provide themselves with outfits, or with such articles of luxury or necessity as they may desire over and above the ship's allowance. All persons who may be discovered to be affected with any infectious disease, either at the original port of embarkation or at any port in the United Kingdom into which the vessel may subsequently put, are to be re-landed, with those members of their families, if any, who may be dependent on them, or unwilling to be separated from them, together with their clothes and effects. Passengers re-landed are entitled to receive back their passage-money, which may be recovered from the party to whom it was paid, or from the owner, charterer, or master of the ship, by summary process, before two or more justices of the peace.

The scale of provisions fixed by the Government to be supplied to each emigrant by the ship is sufficiently liberal to keep in health and comfort all among them, who, in their ordinary course of life, were not accustomed to animal food. The following is the scale, in addition to any provisions which the passengers may themselves bring:—

3 quarts of water daily.	
2½ lb. of bread or biscuit not inferior to navy biscuit)	
1 lb. wheaten flour	
5 lb. oatmeal	
2 lb. rice	
2 oz. tea	
½ lb. sugar	
½ lb. molasses	
	per week. To be issued in advance, and not less often than twice a week.

5 lb. of good potatoes may, at the option of the master, be substituted for 1 lb. of oatmeal or rice; and in ships sailing from Liverpool, or from Irish or Scotch ports, oatmeal may be substituted, in equal quantities, for the whole or any part of the issues of rice.

Vessels carrying as many as 100 passengers must be provided with a seafaring person to act as passengers' cook, and also with a proper cooking apparatus. A convenient place must be set apart on deck for cooking, and a proper supply of fuel shipped for the voyage. The whole to be subject to the approval of the emigration officer.

"Provisions are put on board Australian ships for six months, as is water also; but the voyage in a good ship, if the captain knows his business, rarely exceeds four months, so that there is no danger of starving by the way. Cabin passengers have their food cooked for

them, as at an hotel; it is, however, regulated by a prescribed scale, and every emigrant should demand a printed copy of this scale before paying for a passage. If refused, go at once to another broker. It may be useful in the case of a captain serving out short commons. The writer, in the course of a pretty long experience, has known this done, but rarely. The ship-owner would be charged according to the scale, but the emigrant might, for obvious reasons, be defrauded. The printed copy of the scale is part of the contract, and it is the emigrant's fault if, having been fore-warned, he do not carry away so important a document in his pocket.

"To the fore-cabin passengers the provisions are served out on three days a-week, according to the daily scale. These cook for themselves, and the general practice for them is to appoint one of their number as a messman for each week in rotation, all, of course, lending a hand when necessary. The messman receives the provisions in a mass, and afterwards distributes them to his class. In all well-regulated ships, no cooking is allowed but at stated times, which, for the sake of good order, are strictly kept. The ship finds the requisite fuel and coppers, but the emigrant should always take care to provide himself with the few domestic utensils which his previous experience will tell him are indispensable, and these should all be made of metal. The following list comprises all that are really requisite:—Can to hold the water, as it is served out; wash-basin, baking-dish, tin pot and plate, teapot, spoon, knife, fork, and an oval pot and tea-kettle for the mess, not for each individual unless he like to take them."

As the ship is making her way down the river, the "Roll call" of the passengers is gone through. This is a process that occupies a considerable space of time especially in a large ship containing seven or eight hundred emigrants. The passengers—those in the state cabin excepted—being all assembled upon the quarter deck, the clerk of the passenger-broker, accompanied by the ship's surgeon, and aided in the preservation of order by the crew, proceeds to call for the tickets. The clerk, or man in authority, usually stands upon the rail, or other convenient elevation on the quarter-deck, so that he may be enabled to see over the heads of the whole assemblage—usually a very motley one—comprising people of all ages, from seven weeks to seventy years.

THE VOYAGE.

We will now give a general account of the ordinary incidents of a voyage to Australia, as described in a clever sketch, recently penned by Mr. T. Skinner Prout, whilst himself a passenger in an emigrant ship to Australia:—

"Time was, when a voyage to the Antipodes was considered a very serious undertaking; when even experienced, hardy, and weather-beaten seamen, bound to those distant regions, took their last look of dear old England, with anxious hearts and ideas of difficulties and dangers to be encountered, which were then considered to be inseparable from so long a voyage; and long indeed it once was, as we find by the following paragraph from 'Collins's New South Wales.' The Colonel, speaking of the arrival of the first fleet at Port Jackson, New South Wales, says:—'Thus, under the blessing of God, was happily completed, in eight months and one week, a voyage, which, before it was undertaken, the mind hardly dared venture to contemplate, and on which it was impossible to reflect, without some apprehension as to its termination.' In the present day, however, a voyage to Australia is so well understood by navigators, and, generally speaking, known to be so safe, that it has become divested of its once attendant horrors; and the four months' sojourn on the ocean (the average time occupied in the voyage), to most persons, passes pleasantly enough. 'Tis true there are inconveniences to be experienced; and, from the circumstance of persons of different habits and feelings being thrown and kept together, little disagreements will occasionally occur: these are amusing enough, and serve to vary the usual monotony of a sea life. I here more particularly allude to passenger-ships: in emigrant vessels there is no lack of variety; the necessary duties to be attended to for the preservation of order and cleanliness among the emigrants afford them some daily occupation, and render them more alive to those little recreations, which are frequently indulged in, and in fact encouraged by the officers of the ship. But, as a more detailed description of the manner in which the time on board is passed may be interesting, I think I cannot do better than refer to parts of a journal kept on my voyage out, and which, at the same time, will serve to explain the accompanying engravings, from drawings made from sketches taken during the passage.

"Four bells. On deck. Weather thick and hazy. Wind W.N.W., and steady; ship going about seven knots. Off Madeira; distant twenty miles. Mist gradually disperses, and the beautiful island is clearly discernible, capped by the last clouds of the morning.—Six bells. A general turn-out from below. Breakfast over. Emigrants on deck disperse themselves in various little groups. The schoolmaster has summoned his little class, and, seated reverentially on some spar, the prescribed educational course is in full progress. A contemplative shepherd takes his solitary seat on the keel of the reversed long-boat amid-ship, whilst several anxious souls looking after creature comforts surround the cook's galley. Not a few are lounging over the ship's side, prying with curious eyes into the secrets of the 'deep, deep sea.' 'Portuguese men-of-war,' as Jack contemptuously calls a beautiful mollusk, common to these latitudes, pass by in hundreds, presenting to the wind their gossamer-like sails, tinted with the most beautiful pink and lilac.

Flying-fish have ceased to be the 'lion' they were on first acquaintance. They rise in shoals from the water in all directions, and after a short hurried flight, drop with an extended splash into their element again.

"The sun is now fast approaching the meridian, and some little bustle is observed on the quarter-deck. The captain, two of the mates, the doctor, and a tiny midshipman, have all adjusted their several sextants and quadrants, and are making a steady examination of the horizon immediately to the south. Gradually a long string of passengers ascend from the cabin, and curious middle-class emigrants gather in the rear of the astronomical party, who are, in fact, engaged in taking the sun's altitude, to determine our present latitude. After some minutes, the instruments are lowered within a few seconds of each other; and the captain, solemnly addressing his first mate, says, 'Mr. Jones, make it noon.' 'Ay, ay, sir. Forward there; strike eight bells.' This important business settled, conversation then becomes general, and turns upon what southing the ship has made in the course of the last twenty-four hours. For the next hour, many, and anxious too, are the inquiries at the cook's galley: whilst the ship's company gather round a huge tub, with like devotion, narrowly inspecting, in the first place, the steward's integrity as regards mixing the grog; and, in the next, disposing of their allowances, each in his own way—some making short work of it upon the spot; others, in cans or bottles, carrying it away to reserve for future enjoyment.—Two bells. Dinner is now announced, and the hatchways are and are pouring out a stream of hungry mortals. It is *pecanoup day*, and the cook, almost lost in the dense and savoury atmosphere of steam which rises from the coppers, is ministering to the creature wants of the attendant crowd, who, with hook-pot or pannikin in hand, are patiently waiting their turn. According to the rules and arrangements of the ship, the emigrants are divided into lots, or messes, of six or eight persons in each; and, except in the varying nature of the provisions, the incidents of the daily dinner on board partake very much of the same character. Sometimes, however, the fore-castle (or fox-cle, as it is always called), an elevated platform in the bows of the vessel, is chosen for a select dinner-party, who, in the fresh open air, enjoy their meal in a true picnic style. Tobacco is now the order of the day—the silent indulging in a pipe, the talkative enjoying a cigar—whilst all are happy. What cares, in fact, can arise upon the bosom of the wide expanse of ocean! The griefs we brought with us are forgotten, whilst all vexations have been left behind. Sleep, too, comes almost naturally to minds so situated. Thought becomes a burden where there is so little to excite it in providing for the wants of the body; therefore, it is that, the pipe finished, the afternoon's nap is a retreat to which emigrants on the passage out generally retire until near ten-time, or near six bells, when the cook is again at his post—the cry of 'Tea-water!' penetrates the depths below, and soon, in noisy response, clattering hook-pans, pannikins, and pans are again rushing up the hatchways, and crowding around the galley.

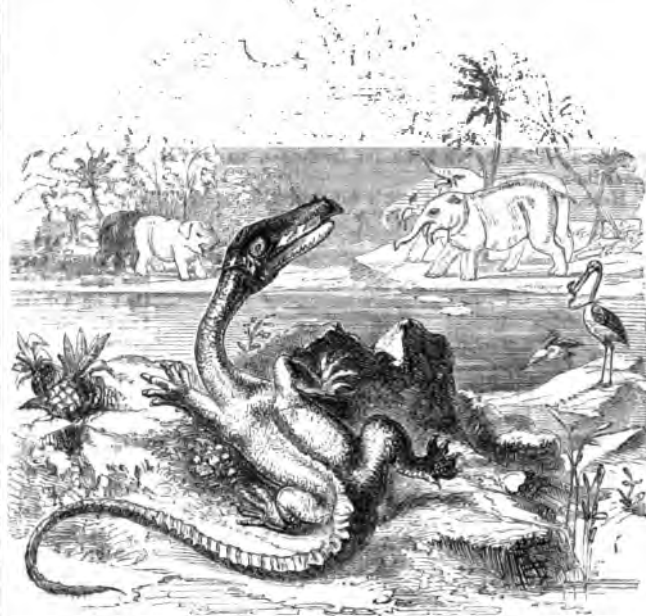
"On board the good ship the *Hope*, after tea, two religious services were performed, at least, the Catholics selecting one of their party, who always read prayers; whilst to the rest of the emigrants the surgeon, as usual in such vessels, read the service of the day as set forth in the Book of Common Prayer. Eight bells struck, and another transition of thought varied the proceedings of the day. Forward are preparations being made for a dance, and a musical Jack is soon found, who, seated on a coil of rope, or perched on a spar, in a very short time is plying most vigorously the fun inspiring fiddle. In the confined space of a ship's deck, polkas and quadrilles are out of the question, though at first much affectedly fastidious disinclination is expressed against the reel and jig. But it is not long before these last reign triumphant, and delicate forms and choice spirits foot the monotonous but merry-going measure with as much enjoyment as if they moved in a minute before hundreds of observant eyes. Now, for one moment turn our eyes from the mirth-stirred bustling scene on deck, and scan the wide solitude of the surrounding ocean lit up by a splendid moon, not a sail in sight save the white swelling canvas over our head, bending bravely before a spanking breeze that is steadily urging us on in our trackless way.

"The fineness of the night tempts all from below, when the deck becomes crowded, though all appear to enjoy themselves to the full: on the poop children are gambolling, whilst those in converse sweet, or on gossip most intent, keep up a continued promenade on the deck. Descending below, there a little group surrounds some learned friend, who has industriously worked the ship's course for the last day, and is now giving a detailed report to his companions, who all busily examine the amateur's well-thumbed chart, as if they knew a great deal about it. A little beyond, perhaps, the boatswain, from his cabin door, spins one of his long, marvellous yarns to his credulous open-mouthed neighbour on the opposite side. Further on, again, is the emigrants' quarters, the interior of which can be seen through an opening in the bulk-head. Good wives are now displaying their matronly qualities, but in most cases vainly endeavouring to calm the *Baby-Ionian* confusion of tongues and screaming squall that, for at least one hour, prevails in the family compartment of the ship. To add to the quiet enjoyment of compelled, but resigned spectators, sundry night-capped heads of disturbed damazels, retired for the night, appear from their berths, but produce little effect by their complaining, whilst the unblanketed lower extremities of others, more calm and philosophic, may be also seen projecting from the narrow confines of their beds. But hark! Four bells is striking: 'Lights out!' is heard in various quarters; and in a few minutes, save the measured tread of the watch on deck, the rustling sails, and rippling waters on the vessel's way, not a sound is heard."

RECREATIONS IN GEOLOGY.

NO. IV.—PASSAGE OF LIFE THROUGH MANY FORMS.

COLLATERAL with the earlier mammalian developments, we meet with reptilian forms of great magnitude, and of a type corresponding with the highest in the series. Two of these, the iguanodon and the hylaeosaurus, merit passing notice for their close resemblance to the living iguana of the American tropics. The first was an enormous creature, more than realising the dimensions of the dragon of fable. Its thigh-



ANIMALS OF THE TERTIARY AND DRIFT PERIODS.

bone exceeded in bulk that of the largest elephant, and was between four and five feet in length. Dr. Mantell deduced its measurement by comparison of its remains with the skeleton of the iguana, and gave as the result the following:—

Length from the snout to the extremity of the tail .	70 feet
Length of the tail	52½ "
Circumference of the body	14½ "

Though Professor Owen has somewhat reduced these proportions, the iguanodon may still be pronounced one of the most extraordinary animals ever discovered.

These remains usher us into a new age of wonders, in which life barely survives the trying vicissitudes to which the commencement of the chalk era submits it. The iguanodon passes through the storm unhurt, and its remains are found in the beds of the succeeding cretaceous system. From the time in which the ichthyosaurs and its companion monsters perished, to the deposition of the immense beds of chalk which followed, immense periods of time rolled by. Vast continents were submerged, immense tracts of land were washed away, and the great hills of chalk were built up in the main from the *débris* of the broad lands which had perished. During this series of changes, life stood still,—the seas were deserted by almost all forms except those of the minute molluscs, corallines, and sponges, the remains of which latter are seen in a crystallised form in the nodules of flint. The only creature of striking character (beyond the few which survived from the preceding age) which frequented those seas was the mososaurus, or the lizard of the Meuse, whose remains were discovered some years ago at Maestricht by the celebrated Hoffman.

But the hills rose from the ocean, and the age of the tertiary dawned, and as vast tracts of fertile land were laid bare to the sunbeam and the shower, so vegetation and animal existence took new heart together, and an entirely new creation appeared on the soil where many had perished before. The tertiary rocks occupy more than half the surface of Europe; they likewise extend along the southern bases of the Himalayas, and in North America they cover nearly all the level region in the eastern part of the middle and southern States. They are frequently deposited in hollows of the chalk,—and, curiously, these beds are frequently the sites of great cities. The tertiary clay beds of Britain were probably deposited from large rivers, which rolled down a continent now probably sunk beneath the Atlantic Ocean.

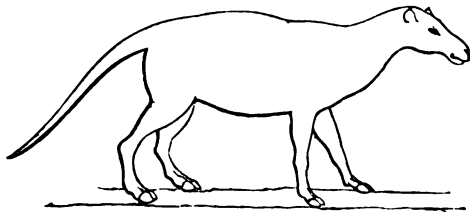
The deposit of the London clay, which forms the well-known London basin, was formed in this way from the waters which found their exit by the Thames; and the flat clays of Essex mark how in times most recent the rich alluvium has been deposited upon the tertiary by the same means. It is in these deposits of the London clay, and in the corresponding deposits of the Paris basin, that we find the remains of the creatures which characterized the tertiary epoch. These were of marine, fresh-

water, and terrestrial origin,—the latter deserving the highest claim to attention as marking the progress of development.

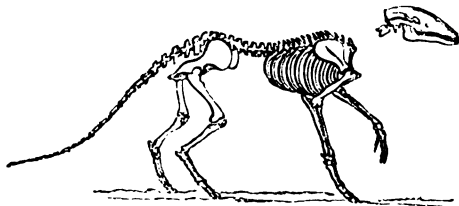
Marine and fresh-water shells are numerous in this series of rocks, and added to them are the remains of fresh-water fishes and crocodiles, with land and river reptiles, and the skeletons of mammalia. These last not only reveal how far life had advanced towards its final completion in form and attributes, but testify how unerring are those laws of induction which, established by Bacon three centuries since, and applied by Cuvier in the investigation of these remains, form an infallible guide to the philosopher in his passage from the known to the unknown. Never was conquest more honourably achieved than when the great anatomist, from the comparison of a few fragments of fossil bone, deduced the general outline, the size, weight, history, and habits of creatures which man had never yet beheld, but the deduction of which was confirmed by every subsequent investigation, and by the exhumation of vast numbers of partial and complete skeletons.

The creatures of this latter age are better known through the medium of popular treatises than any of the preceding creations; and the intense interest which attaches to their remains endows them with a romance which never loses its freshness, an attraction which never loses its novelty.

Here, then, we meet with huge fossil tapirs, the palæotherium

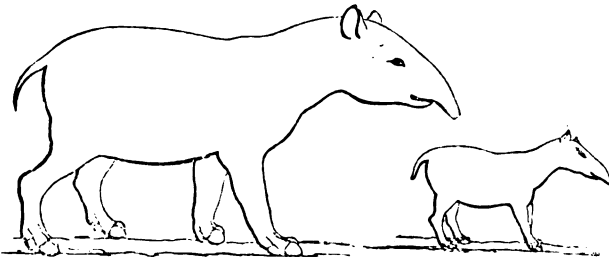


ANOPLOTHERIUM COMMUNE.



SKELETON OF THE ANOPLOTHERIUM.

opossum, representing the Marsupialia; nine or ten species of birds, referable to the several genera of the buzzard, owl, quail, woodcock,



PALÆOTHERIUM MAGNUM.

PALÆOTHERIUM MINUS.

sea-lark, curlew, and pelican; several large tortoises and crocodiles of extinct species, which represent the reptiles; and seven extinct species of fishes. Here, then, is an age and a region of animal wealth, the fruition of those laws which began their operations in the creation of minute animalcules of the 24,000th of an inch in diameter. As the appearance of mammals was preceded by the existence of gigantic reptiles, so the period immediately antecedent to the appearance of man on earth was the era of gigantic quadrupeds, including the well-known megatherium, the dinotherium, the hippotherium, several varieties of rhinoceros, the agnotherium (a kind of dog as large as the lion), the mastodon (a species of elephant), the glyptodon or monster armadillo, and various minor brutes which claim kindred with our modern swine. All these were huge and powerful, and added the charm of life to scenes which the vegetable kingdom had already wrought into forms of beauty and majesty and wonder. Following on these were hyenas and bears, whose remains have been found in plenty in this country; and as we leave the period of boulder stones and great floods which followed upon the deposition of the last crust of the Pliocene Tertiary, and come into the last alluvial formation, the silt and gravel of to-day, the entire circle of the existing animal creation breaks upon us, and man stands in the midst, naming the creatures!

Thus we see that life has passed through many forms, beginning with the simple and ending with the complex; completing its last and greatest achievement in man, who, erect and proud, surveys the

creatures that crawl beneath him, and beholds in himself the reflex of the whole in body, in habit, in constitution—whilst in intellect he



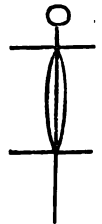
SKELETON OF THE MEGATHERIUM.

stands above and apart from them, claiming kindred with them *there* only to participate in their pains and pleasures, to investigate their history and structure, and to render them subservient to his wants as mere creatures of cold utility, or as ministers to his highest thoughts and sentiments.

Look at this simple thread of life on which the tribes of creatures are strung as beads. What is it? An entity or an attribute of matter? Or if life is a problem not to be solved, what is the meaning of this constant and progressive development from mean things to mighty ones—from creatures which crawl "on the belly" and "eat the dust," to the lord and master of the world, who walks with his brow confronting heaven, and claims kindred with all creatures only to subdue them, racking each fibre of the world until he knows its meaning, and adding to his intellectual gifts a moral nature which shall perish never! It is said to be a simple growth in obedience to the first impulse of a primitive organized cell, and which, starting under one type, conforms ever to that type, and builds upon it each successive creation by a mere process of organic addition. In the world of life, then, you have to borrow the use of the primitive cell; you have, in fact, to create, or imagine the creation, of the primal germ before you can trace its progress through many forms in obedience to a typical outline. Here is a type of the whole chain of *vertebrata*. A central spinal column, a cranium, and four extremities. From the lowest to the highest in the series this type may be traced; the peculiar exterior form of the creature being a mere adaptation of the same instruments to various uses. In the bird the feathered wing corresponds to the human hand with its delicate fingers, and to the flapper of the whale with its leathery covering and fitness for propulsion in the water. The long legs of the ostrich dwindle down to claws and paddles in the sauroid reptiles, and to imperceptible knobs of undeveloped bone in the serpents and the snakes. Be the structure what it may the generic type lies beneath it; and if the ribs of the mammalia become plates of armour in the tortoise, and the long prehensile tail of the ape shrinks into the *os coccygis* when the human outline marks the last phase of the animal and the first phase of the divine; still the type is underneath, and you have only to pierce the integuments to perceive it.

You have the world, then, with its rounded belt of waters, its sky-cleaving hills, and its vast plains, rich in the chemical ingredients of vegetation; and yet before the primal germ arrives there is no blade of grass, no whirring wing, no bounding nor creeping creature. Take your laws of development and compound them how you will, can you have life, either animal or vegetable, from the mere fermentation of river sludge, or the accidental meeting of particles of lime and potash, of silica and clay? nay, even if you will drag life from thence by galvanic experiments, which have been neither substantiated nor repeated;—even if the imaginary primitive cell, the cell created by the theorist as the key-stone of his rainbow arch of successive generations—if you have the cell which is to give birth to your illimitable series of animals and plants,—whence will you draw intelligence! Where is the cell which shall give birth to thought, and light up the eye of every moving brute with a consciousness and capacity for joy! Another Prometheus must scale the blue wall for that, or you must suffer God to create it after your long and useless travail in the search of the aboriginal cell. In the physical, as in the moral world, we must ever go back to God, and recognise in the All-Father the perpetual source of physical power and of spiritual joy.

• Vide experiments of Mr. Crosse, as related by the author of "Vestiges of the Natural History of Creation."





DRAWING FOR THE MILITIA.—BY PHILIP. (See page 150.)

THEORETICAL AND PRACTICAL ESSAYS ON ARCHITECTURE.*

NO. II.—ON THE CHARACTERISTICS OF GREEK ORNAMENT.

HAVING illustrated and explained the leading elements, characteristics, and general forms of Grecian Architecture, and described the three orders invented by the ancient Greeks, we now proceed to inquire into the origin of Greek decorative ornament; an inquiry the more important, as some of its peculiar formations laid the very basis of the combinations, which were subsequently modified and adapted by the Roman and Palladian architects, in their development of a more ornate style of architecture.

The simple and distinctive original forms of Greek decorative embellishments were derived from a careful artistic study of the honeysuckle and egg of nature; the former laying the ground-work of their ornamented friezes, cymatiums, or *cyma recta*, anti-fixe, and other enrichments, whilst the latter suggested the idea of the original type, of what is familiarly known as the *egg and tongue* in Greek work, and the *egg and anchor*, or *egg and dart*, in Roman.



Fig. 1. HONEYSUCKLES FROM NATURE.



Fig. 2.

Figs. 1 and 2 represent the honeysuckle drawn from nature, and we must observe, that from this simple flower and its stem and leaves, the Greek artists formed most of those beautiful combinations, in their friezes, and numerous other embellishments, in which animal subjects were not introduced.

Fig. 3 exhibits the honeysuckle as perfected in its conventionalised shape from nature, and confined within a general and fixed outline.



Fig. 3.



Fig. 4.

Fig. 4 shows the finish at the external angle of the cymatium or *cyma recta*, which is the uppermost member of the Greek entablature.



Fig. 5.

Fig. 5. might be used either to enrich a frieze or cymatium.

Fig. 6 represents a very peculiar ornament, much used in the Greek style, called an *anti-fixe*, which was applied above the eaves to conceal the ends of the *harpi*, or joint-tiles of the roof, partaking of the general form of fig. 3.

* The first article appeared in No. 5.

The next most important enrichment, which we shall notice, is that which is used to adorn the Greek ovolo, which we shall endeavour to show has been derived from a careful study of the egg in nature, and the conic sections.



Fig. 6.

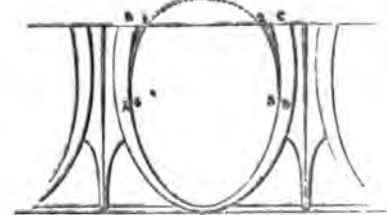


Fig. 7.

At fig. 7 (including the dotted line at top) is shown the exact section obtained by a cut through the centre of the common egg in nature, as at A B C D E; and 1 2 3 4 illustrates that portion of the natural form which is abandoned, and made to contract at the upper end, and thereby approximate to the form of the enriched Greek ovolo.

Fig. 8 exhibits the more refined characteristic of the Greek Egg and Dart, which is formed in the upper portion after the egg, the lower end beneath 1 and 2, being a section of the upper end of the parabola.

Fig. 9 serves to illustrate this peculiar ornament, by the combination of nature and geometric science, with the addition of what is termed the *reel and bead* at the bottom, and the honeysuckle enrichment at the external angle, which has been alluded to; the whole combined, completing this admirable enrichment of the ancient Greeks.

We make no apology for dwelling so minutely upon the derivations and peculiar formations of Greek enrichments; because, as they laid the basis of what

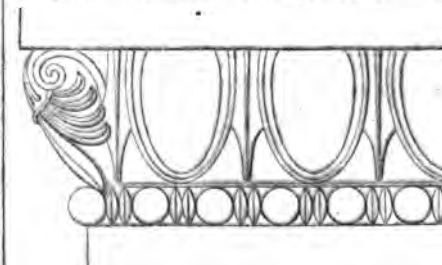


Fig. 9.

was subsequently accomplished by the Roman and Italian architects, it was deemed highly essential to elucidate the natural and geometric principles on which they were formed, in as clear a manner as possible, in order to guard the student from committing errors in

their representation, which has been too frequently done, not only in theory, but in absolute practice.

We shall not deem it necessary to proceed further in our illustration of Greek architectural art, considering, that, in its true integrity, it is not adapted for the general purposes of life, nor to our humid and variable climate, owing to the very low pitch of the roofs required to keep this style in perfect accordance with the great Athenian originals.

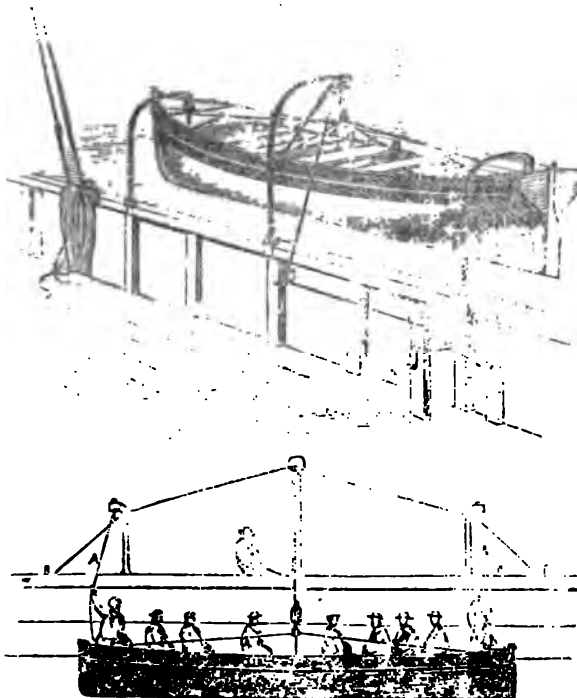
Greek architecture has, however, been somewhat successfully applied to churches by the late Mr. Inwood, although it does not admit of that varied and picturesque treatment of which Gothic and Palladian art is susceptible, for ecclesiastic structures. Sir Robert Smirke and Mr. Cockerill have also erected several public buildings on a large scale in the true Greek manner, of which the General Post Office in St. Martin's-le-Grand, and Hanover Chapel, Regent Street, may be named as the most successful.

To form a good general idea of the magnificence of Greek architecture, and the refined and exalted character of the plastic arts in combination with it, the reader is requested to examine carefully the illustrations at pages 88, 89, and 91 of this Journal, which are taken from remains of the celebrated Temple of Minerva at Athens, the architectural portions of which were designed by Ictinus and Callicrates, and the sculptures by Phidias and his immediate contemporaries.

MEMPHIS AND NIMRUD.—At the Syro-Egyptian Society lately, a letter was read from Mr. Harris, of Alexandria, with an account of the French excavations in the neighbourhood of Memphis. There had been opened a gallery, tunnelled into the hills, 2,000 feet long, with cells on each side, each cell containing a huge granite sarcophagus of one of the sacred bulls. There were thirty of these great sarcophagi. Mr. Sharpe gave an account of Mr. Harris's new work on the standards of the Egyptian towns, containing the curious discovery of the list of towns contributing to the cost of each temple. Some of the standards Mr. Harris has been able to identify with the names of the towns. They are all arranged in geographical order, from Nubia to Memphis, and Sais in the Delta.

IMPROVED MANAGEMENT OF SHIP'S BOATS.

At the last *soirée* held by Lord Rose, the President of the Royal Society, Mr. Landells exhibited the model



of his "Safety Boat-Sling." The simplicity of the invention was greatly admired by the numerous and distinguished individuals present. The object of the invention is to *hoist, secure without lashings, and lower the boat by means of one tackle*. The disastrous loss of life which ensued on the burning of the Amazon was most distressingly aggravated by the many complications, difficulties, and uncertainties at the present time attendant upon lowering the life-boats in so fearful an emergency, one so sudden, and so unexpected. It appears that the Amazon had no fewer than nine boats, and most of these were worse than useless for the purposes for which they were intended, from the difficulty of clearing and lowering them into the sea. The manifest cause of the numerous accidents may be clearly and briefly explained:—On the present system a life-boat, suspended by tackle at each end, has to be lowered into the sea by two men, one at each tackle. What is the consequence? In nine instances out of ten, in the confusion of a wreck, &c., one end is rapidly lowered, while the other is tilted up; the boat is stem down and stern up, or vice versa. Let us suppose, as in the case of the Amazon, that the passengers have crowded into the said life-boat—they will all be thrown out into the sea! This awful eventuality has been of continual recurrence. In the smoothest water, and with the ship lying at anchor, it requires at least two men to lower the boat, and, moreover, to exercise great care in doing so, in order that it may go flat on the water. Now, by Mr. Landells' plan, the boat cannot tilt. He employs only one pulley, acting from the centre of the boat, with diagonal lines from stem and stern, which keep it in perfect equilibrium. The great novelty in the plan is that the boat is perfectly secured when hoisted up by a very simple contrivance: an iron rod with a hole in the centre is fixed near the stem and stern of the boat. It is then pulled up into a pin attached to the end of two iron stays; and the boat is perfectly secured, and requires no "lashings," which have been the cause of so many accidents. The boat can be lowered in a minute by one hand, and she clears herself from her fastenings by her own weight when one tackle is let go. We understand that the plan has been seen and approved by some of the first practical seamen of the day, among others by Captains Donnet and Burnett, examiners at the Local Marine Board.

Another useful invention connected with boats was exhibited by Mr. Lisabé, C.E., and, if adopted with Mr. Landells' plan, would be all that is required by the report of the Board of Trade. It is a self-acting safety plug, the object of which is unerring security against accidents, in fact to save life under any emergency, when it is necessary suddenly to lower a boat into the water; and, under all common circumstances, to prevent the boat from being swamped through any neglect in properly securing the plug-holes. The

water forces the plug, which is in the shape of a ball, into its requisite position by an unvarying law of nature; and the greater the depth of immersion the greater the pressure of the water and of the resistance to its entrance. And, when this function has been performed as long as may have been required, the instant the boat is hoisted up, the sphere (which constitutes the active principle of the safety-plug) falls to the bottom of the socket, and allows whatever water may have accumulated to run off. Had the boats of the Super Steamer been so fitted when she ran on the Mingulir rocks, every passenger might have been rescued! And there are innumerable instances in which such a perfectly self-acting instrument would not only have saved the sacrifice of life, but have prevented the destruction of most valuable property, by enabling the crew to avert the impending dangers of shipwreck!

Mr. C. E. Hoppes' testimonial of the manifest advantages derivable from the use of the present invention, written after several weeks' trial in his barges, and since the model was deposited in the Exhibition, is most conclusively.

GERMAN PLAYS.

NO. II. SCHILLER AND LESSING.

Is delivering themselves from the French models which had preceded them, Goethe and Schiller at a species of historical play, not, however, of the Shaksperian kind, but with a philosophical interpretation at the bottom, and an æsthetic form, as it were, super-imposed on the crude materials, such as would add beauty, sentiment, and harmony, and above all, give unity to their combination. Thus it is that the action of *Egmont* is altogether mental, though the character of the hero himself is exclusively objective. He is not the ideal of a hero, but the humanization of one. We have the man with his faults, and the heroic thrust upon him by destiny at the close; and, indeed, for the termination of his career. The counsel given to him by William of Orange has a strange, but natural, influence upon him; not to follow it, but to seek refuge from mental oppression in a "friendly means,"—"ein freundliches Mittel, von meiner Stütze die flammenden Ruten zu wegzubaden." He will seek the Burger maiden, Clara, and in her love find the repose he needs. Goethe has been blamed by some critics, who have not understood the psychological reason for this incident, because the poet did not here follow history, and show Egmont in relation to his wife and family, who are withdrawn from the scene entirely, no allusion being made to them. But it will be remarked, that Clara nowhere hints at any expectation of marriage with Egmont; and her mother, on the contrary, uses language which points the other way. Her humble lover, also, both by word and act, interprets Egmont's relations with her in a similar way. There is, in fact, no reason for saying that it is as a "jolly bachelor" the hero visits his mistress. No such thing; the Egmont of the drama requires a change from all that is conventional, in order to make his social and political position tolerable to a nature like his, predisposed to pleasure, and forced to unwelcome reflection. Goethe, moreover, may be justified in his treatment of the subject by the fact that Egmont's family differed from him in political sentiment, even his son considering him to have been justly doomed as a rebel.

In the dramatic liberty thus asserted by Goethe, he was followed by Schiller, who, however, went further than he, by introducing effects borrowed wholly from the theatre. After the performance of "*Die Räuber*," "*The Robbers*," Schiller became acquainted with actors; and, finding a difficulty in fitting his second play, "*Fiesco*," for the stage, projected a third, "*Kabale und Liebe*," (*Intrigue and Love*), expressly suited to the company of performers at Mannheim. This last play has been performed by the German troupe at St. James's, as well as "*Don Carlos*," precedence, however, being given to the latter; and these were followed by the "*Emilia Galotti*" of Lessing.

Fully to appreciate these performances, it is expe-

dient that the last should be considered first; for it was Lessing who created the modern German drama, and Schiller's "*Kabale*" is evidently indebted to that author's prior drama. The part of *Marinelli* in the earlier play is the original of *Wurm* in the later. Both were admirably played by Herr Kuchin, to whom also was confided the *Mephistopheles* in the tragedy of "*Faust*," of which those were the crude foreshadowings. This is a style of character peculiar to the German stage; or if not, recollecting Shakspeare's *Iago*, quite peculiar, yet brought to a perfection in the German drama, not elsewhere attempted. It is the impersonation of the mere intellect separated from the moral powers, pursuing its purposes by proximate means and ends, in the most direct manner, with the most distinct consciousness, but no gleam of conscientiousness whatever. The actor, whom we have mentioned, seems to have studied the embodiment of this subtle principle with an artistic aptitude not a little remarkable. Of a tall, flexible figure, every member of his body is contorted by turns to lend expression and emphasis to some refinement of phrase or thought, some shade of meaning, now requiring, perhaps, only the movement of a finger, the position of the foot, the flexure of the leg or neck, or some odd action of the arm or hand, for its indication. There is, in all this posturing, the suggestion of a being, more or less, or at any rate, other than human. It is the old serpent formulated in a human shape, but without the human heart. The difference between *Marinelli*, and *Wurm*, and *Mephistopheles*, is simply, that the two former tempt their victims to please their employers, the last to please himself; those for profit, and this for sport. But in all these varieties, there is nothing of the Biblical devil; the sacred is discarded with the heroic; and all reduced to a domestic level. "*Emilia Galotti*" is thus the modern Virginia, attempted to be seduced by an Italian prince, who causes her bridegroom to be assassinated, after which the daughter pleads for death from the hand of her father. The prince detains the lady on the plea of placing her under the protection of Grimaldi, at whose house he had first beheld her, and conceived the desire to make her his mistress. The experience she had there received had revealed to *Emilia Galotti* her moral weakness. This, accordingly, is the confession she makes to her stern and honourable parent.

"Force! What is that? Who may not defy force! What you call force is nothing. Seduction is the only real force. I have blood, my father, as youthful and as warm as that of others. I have senses, too. I am not resolute. I know the house of Grimaldi. It is a house of revelry; a single hour spent in that society, under the protection of my mother, created such a tumult in my soul, that all the rigid exercises of religion scarcely could quell it in whole weeks. Religion! And what religion? To avoid the snares which await me, thousands have sprung into the waves, and now are saints. Give me the dagger. Then, my father, give it to me!"

Thus it is, that *Emilia Galotti* seeks death rather than temptation. That she may not be led into the latter, she prefers the shelter of the grave. She is not saved from actual violence by assassination, like the Virginia of Roman fable, but she dies a martyr to a sentiment, like a modern mystic. And thus it was that dramatic writing was adapted to the state of public feeling. Lessing explained the principles on which he had conducted his plot in his "*Dramaturgie*," a work devoted to the art and its elements, written with Aristotelian acumen, and abundantly illustrated with examples.

Schiller's imitation of this great work is of a coarser grain. The sentiment of "*Kabale und Liebe*" is political, and in defence of a class interest, the burgher life as opposed and placed in peril by the vices of the nobles. The latter are painted in the darkest colours, as utterly unprincipled and devoted to the destruction of maiden innocence in the humbler orders. The daughter of a musician is the victim; but she is truly beloved by the son of a noble house, who, because he will not act faithlessly towards her, is sacrificed also with her. The poor girl is tempted into an act which brings her into suspicion with her lover, who, in despair, first poisons her with a glass of lemonade, and then himself. What there is of a more tender sentiment in this drama belongs to the heroine, who feels and thinks in a manner scarcely belonging to her situation;—but then the style in which she speaks qualifies her for an advocate of her order, of which she is constituted the mouth-piece and representative.

To Correspondents, &c.

MR. OWEN JONES's fourth and last lecture, "On the True and False Principles of Decorative Art," will be given in our next.

M.C.—We shall be happy to see the memoranda on the subject mentioned. Illustrations of the tools employed would be desirable.



THE EMIGRANT.

[AIR—"When you gave me the Garland."]

FAREWELL to thee, England! oh, land of our birth,
The pride and the glory and queen of the earth!
We sail with sad hearts to a land far away,
In search of the bread that may fall if we stay.
New faces glow bright in the blaze of our fires,
The stranger sits down in the halls of our sires.
Farewell! oh, farewell to thy beautiful shore!
England! dear England! farewell evermore!

We've courage to lead us;—there's strength in our hands;
There's wealth to be won in the far distant lands;
For us and our children are acres to spare,
And the name of our fathers forbids us despair.
There are homes in the world for the honest and free,
And kingdoms and empires to found o'er the sea:
We quit not in anger thy beautiful shore;
'Tis with tears that we bid thee farewell evermore!

Farewell! oh, farewell! in the land where we go
Our heart's deep affection shall lighten our woe:
Thy manners, thy language, thy faith, and thy fame,
Shall follow our footsteps and flourish the same;
Thy virtues shall live in the songs that we sing,
And the tales that we tell to thy glory shall cling.
Farewell! oh, farewell to thy time-hallow'd shore:
England! dear England! farewell evermore!

CHARLES MACKEY—(New Poetic Version of English Melodies).

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PRICE TWOPENCE.



DR. GIACINTO ACHILLI.—(WHEN PRIOR OF A DOMINICAN CONVENT IN NAPLES.)

DR. GIACINTO ACHILLI.

ACHILLI was born at Viterbo in 1803; he took the Dominican habit in his native town at the early age of sixteen; and in the year 1820 was ordained a priest at Lucca, where he enjoyed the marked notice of the reigning Duke. He soon returned to Viterbo, where his learning, his eloquence, and his winning manners gained him much esteem. The Vicar-General of the province placed the utmost confidence in him, and he was speedily raised to a position of trust in the Dominican order. In 1826 he was appointed Public Professor of Philosophy in the Lyceum; and he was also the first to fill the chair of Scripture in the seminary of Theology—a professorship which had himself been the means of founding—thus early evincing that the word of God which eventually led to his separation from the church of Rome. In 1833 he quitted Viterbo, carrying with him the goodwill and affection of all his countrymen, and proceeded to Rome, where he had been elected Regent or Prefect of Studies and Primary Professor of the College of Minerva. He was then appointed Visitor of all the convents of the Dominicans in the Roman and Tuscan States, an office he held until the year 1835, when he went to Capua, and was

soon after elected Prior of a Dominican convent at Naples: at this time his pulpit eloquence and his discourses from the Professor's chair attracted much attention, and a lithographed portrait was taken, from which our Engraving is copied.

It was at this period that he first became thoroughly convinced that the doctrine of Transubstantiation was not warranted by Scripture; and his preaching soon became so decidedly Protestant that he was speedily summoned to Rome, and confined in the Inquisition. He was treated with kindness, and all efforts were made to induce him to re-consider his position, and re-enter the communion of the church of which he had hitherto been an ornament. He was set at liberty, under surveillance, and soon contrived to escape to the Ionian Islands, where he at once wrote and published a letter to the late Pope, openly declaring himself a Protestant: this was in the year 1841. He subsequently held the appointment of Professor of Theology in the Malta Protestant College. In 1848 he came to England, where he remained until the flight of the Pope in the December of that year. This revolution, and the consequent religious liberty, induced him to return to Rome in February, 1849. During the whole period of the Republic he occupied himself in circulating copies of the Scriptures, and in receiving at his

house the multitudes who thronged to him for explanation and instruction from morning until night. He did not preach openly, as the constitution granting perfect religious liberty had not yet been promulgated; and he carefully avoided taking any part in the political events which were occurring, although naturally sympathising with the Republic.

On the capture of the city by General Oudinot, he wrote to his friends that there was nothing to fear for him so long as the French flag waved: his mission had been so innocent and so unmixt with politics, that no one could touch him; of course, when the Pope returned he must quit Rome, but till then he was safe—religious persecution could never be allowed under the shadow of the banner of France!

He was soon undeceived. On the night of the 29th of July, at eleven o'clock, the *shiri*, or agents of secret police, presented themselves at the Palazetto Borghese, where he resided, and supported by a corporal's party of *Chasseurs de Vincennes*, arrested him in the name of the French Prefect of Police, Mons. de Rouxau, and carried him off to the Inquisition, where he was placed in one of the foulest and dampest of their dungeons. The British Consul, Mr. Freeborn, exerted himself with his wonted generosity to obtain his release, but in vain. Dr. Achilli was a Roman subject and a Roman priest. Mr. Freeborn, however, succeeded in obtaining his removal to the Castle of St. Angelo, where he remained some time closely confined, without permission to see or communicate with any friends.

When the news of his arrest reached England, his numerous friends appealed to the French Government, who at once undertook to inquire into the matter. The Cardinals boldly asserted that he was not arrested for religion, but for dreadful crimes; and an "Abelard and Heloise" kind of a story respecting him was circulated throughout Europe.

Two of his most attached friends at once proceeded to Rome. Enquiries of a most searching character were instituted in Viterbo itself; the supposed crime had never been heard of, and Padre Achilli was remembered with the utmost respect and veneration. The Roman authorities now changed their ground: they boldly avowed that he was arrested, and should be punished for his apostasy as a priest and a friar; he was a Roman subject, and no foreign power had a right to interfere. They denied all knowledge of the slanders they had circulated against him, and stood to the undoubted right of the Holy Office to try, judge, and to punish him. His two friends in vain implored permission to see their suffering fellow-Protestant. General Baraguay d'Hilliers himself pressed this request on the Cardinal Vicar, but he referred it to the Pope, who sent an absolute refusal. Afterwards, a treacherous fellow-prisoner—the young protégé of the Pope and of Cardinal Lambruschini, who had been imprisoned for stealing some of the choicest medals in the Vatican collection—denounced him for having preached the Gospel to his fellow-prisoners; and orders were given to place him in the most rigid solitary confinement, where he was perpetually harassed by the officers of the Inquisition.

At length, however, his persecutors, whether ashamed of their conduct and the evil notoriety it brought upon them, or tired out by the pertinacious appeals of the friends of civil and religious liberty, resolved, by an indirect or underhand process, to get rid of their charge. One evening two *chasseurs* arrived at the castle, to take Achilli to the French council of war, "to give evidence upon the trial of Signor Cernuschi." As he knew nothing of that gentleman, nor the other of him, he was at first greatly in doubt what all this could mean. He accompanied the two soldiers, and passed through the streets of Rome in an open carriage. On arriving at the court-house he received the most courteous treatment from the captain of the guard, who in a few words placed him completely at his ease. He walked into an ante-chamber, where several military uniforms and accoutrements were lying ready. One of these he put on, the door stood open for him, and no one opposed his departure. He walked unrecognized down the several piazzas till he came to the Corso, where money, a passport, a carriage and posthorses were in waiting for him, and in a few minutes he was beyond the walls of Rome. He arrived at Civita Vecchia at two in the morning, and was received on board a French steamer of war, by which he proceeded to Toulon, and thence to Paris.

On arriving subsequently in England he was welcomed at several public meetings held to commemorate his deliverance.

LECTURES ON THE GOLD OF AUSTRALIA.

THE great interest which is at present felt with reference to the gold regions of Australia, and the number of persons who are at present desirous of trying their fortunes in these auriferous fields of industry, have induced the directors of the Government School of Mines and Museum of Practical Geology, to decide upon the delivery, in the theatre of the institution, of a course of six lectures, with a view more especially to the instruction of emigrants about to go to the Australian colonies.

The first of this course of lectures was delivered on the 30th ult. by Mr. J. Beete Jukes, M.A., F.G.S., of the Geological Survey, and well known as the author of "Sketches of the Physical Structure of Australia." The lecturer introduced the subject, which was "the geology of Australia, with especial reference to the gold regions," by an interesting general outline of the science of geology, for the purpose of enabling those of his audience unacquainted with it to understand more completely the geology of Australia itself. All large accumulations of earthy matters, whether hard or soft, were, he said, for convenience

sake, termed by geologists "rocks." These were of two kinds, stratified and unstratified. The stratified had all been deposited in water, and were, therefore, also called aqueous rocks, and consisted principally of sand, clay, and lime. The sandy rocks were sand, sandstone, gritstone, gravel, pudding-stone, or conglomerate; the clayey rocks were composed of clay, clunch, marl, shale, and slate; and the lime rocks of chalk, limestone, marble, &c. Each of these rocks having been gradually and successively deposited in water through an immense series of ages, had necessarily a certain order or sequence. One set of rocks was deposited in the earliest ages; these, as being the first formed, were called "primary" rocks. In succeeding ages another set was formed, which were called "secondary," and after those another, which was called "tertiary;" and it was clear from the very nature of their formation, that the order of their relative ages must be the order of their superposition, or the way in which they repose one upon the other. The "secondary" rocks could never be found under the "primary" nor the "tertiary" under the "secondary." As, however, no one rock or set of rocks was continuous over the whole globe, it was clear that there might be many places where, for instance, no secondary rocks had ever been formed, and in those cases there might be tertiary rocks resting directly on the primary ones. The geological sequence, or regular series of rocks, therefore, might be broken, but never inverted. The unstratified rocks had all been molten or fluid by the action of heat, and were, therefore, called igneous rocks. They were almost all very hard, and their internal structure was usually crystalline; the small particles of which they were made up, instead of being rounded grains, like those of sandstone, were more or less perfectly formed crystals, interlaced and entangled one with the other. "Igneous" rocks were of various kinds, such as "lava," the produce of volcanoes; "basalt," a heavy black rock, the crystals of which are scarcely discernible, even with a microscope, and which often formed columns more or less perfect, like those of the Giant's Causeway; "greenstone," which differed from basalt simply on account of a slight difference in its mineral constituents; and various kinds of trap rocks up to granite, porphyry, and sienite. Granite is a confusedly crystalline mass of three minerals, called quartz, felspar, and mica. These unstratified or igneous rocks observed no order of position either in time or space. They were all formed below the others originally in the bowels of the earth, whence they had been thrust and protruded upwards by those great disturbing agencies, of which the earthquake and the volcano were superficial symptoms. Passing from the unstratified, the lecturer proceeded to notice the third class of rocks intermediate between the two before-mentioned; rocks which, though originally stratified or aqueous rocks, had been so altered by heat as to put on many of the characters of igneous rocks, and were termed metamorphic, or transformed rocks, their principal varieties being gneiss, which is like laminated granite, mica slate, chlorite slate, &c. and clay slate. Any of the aqueous rocks, whether primary, secondary, or tertiary, might become altered or metamorphic rocks; but as the primary rocks were the lowest, and therefore nearest to the source of heat, and, moreover, were the oldest, and had therefore had more chances of being affected by it than the others; so the metamorphic rocks were usually primary rocks, and most commonly lay at the bottom of those primary rocks. Nearly all stratified or aqueous rocks were fossiliferous, and contained the remains of animals or plants, shells, fish, &c. When the igneous rocks were intruded by main force among the aqueous ones, lifting them up, and pushing through them, they naturally caused immense cracks and fissures to run in various directions. To many of these cracks and fissures the molten rock gained access and filled them up, forming what were called "dykes" and "veins." As the igneous rocks cooled, fissures and cracks were formed in them, as well as in the rocks around them, many of which were subsequently filled by other minerals, of which quartz was the most general and abundant. Besides quartz, however, many other minerals accumulated in these veins, in a more or less pure and crystalline state, and among them many metals, such as lead, tin, copper, silver, and gold. The other metals were rarely found pure, but occurred as ores, combined with other substances in such a manner that they often lost all their metallic appearance, and could only be recognised by the practised or scientific eye. Gold, however, most frequently occurred pure, or, at all events, so nearly so, that its metallic nature could be at once recognised. It occurred in these quartz veins either in crystals or in rudely-shaped lumps and masses, or in small flakes and grains, and sometimes it was diffused through the mass of the quartz rock in such a minute state of subdivision as to be quite imperceptible to the eye, although in such quantity as to be very profitable to the miner.

Passing from the quartz, in which the precious metal was found, the lecturer proceeded to describe the nature of "drift" gravel of sand and clay, often rich in the auriferous treasure. It was well known, he said, that not only had all the stratified rocks comprising the far greater portion of the globe, been formed under water, principally under the sea; but also that, since their formation, they had been raised into dry land, again depressed beneath the sea, and again re-elevated, and this process repeated perhaps many times. This alternate elevation and depression of the land had moreover taken place more or less quietly and gradually, the result of which was that every portion of dry land had passed through the influence of tides and currents and breakers, and all that destructive action which they now saw taking place along our own coasts daily. The result of this was, that the last time the land slowly emerged from the sea, the breakers, the waves, and the currents knocked off fragments of

rocks, washed and rolled them, and swept them about until they had rounded them into boulders or pebbles, pounded them into sand, or ground them down to mud or clay. These clays, sands, and gravels, the washing of the rocks, had finally been left lying about in patches here or there, or spreading over more or less of the surface, sometimes covering large tracts both high and low, sometimes accumulated only in hollows or pre-existing valleys and depressions. When the waters in which these superficial accumulations were deposited, acted on rocks containing gold, whether the gold were disseminated through the mass of the rock, or confined to the quartz veins traversing it, fragments of the auriferous rock, would, of course, be detached equally with pieces of all other rocks. These fragments, either slightly water-worn, or altogether broken and ground down, would afterwards be found in the drift clays, sands, and gravels. But it was important to remark, that these drifted materials would, in all probability, be much richer in gold than the actual gold-bearing rocks themselves. This arose from the circumstance, that water moving with a given force or velocity, communicated motion to matters suspended in it or lying on its bottom according to their shape and specific gravity. Now the specific gravity of quartz and of most other heavy compact rocks was about 2½, whilst the specific gravity of gold was 18 or 19. Gold, therefore, was somewhere about 7 times as heavy as any rock or stone with which it was likely to be associated. A current of water accordingly, having sufficient strength to bear along and or pebbles of quartz or any other rock, might not be able to move the fragments of gold associated with them. Speaking roughly, it might be unable to move grains of gold the size of a pin's head, while it swept away fragments of rocks as big as pebbles. Moving water, therefore, had done for the auriferous rocks formerly just what the miner would do now—break it, namely, up into fragments, sweep away the lighter particles, and leave the gold behind it. No conceivable current of water would be able to carry very far large fragments of gold, or even large fragments of quartz or other rock containing much gold. Wherever, then, they found these large fragments, they might be sure they were not far from their parent site. Gold dust, on the contrary, especially if in the form of scales or spangles, might be carried over very considerable distances. In this way the actual total amount of gold might be pretty equally distributed over large spaces of auriferous drift, because the currents that had force enough to move the larger fragments a few hundred yards would carry all the smaller ones miles away. In the one case, rich lumps would be dropped sparingly here and there; in the other, scales and dust would be sown broadcast as it were equally over the wide spaces where the currents began to lose their force and velocity. The same reasoning applied to the case of rivers. When they found gold in the sand of rivers, they must not, therefore, conclude that it was the actual water of the river that had detached it from the parent rock. Doubtless it might do so sometimes and to a small extent, but it was exceedingly unlikely that any river should have the chance of attacking many rich auriferous spots in its bed. As the old drift would naturally be accumulated in the lowest hollows and depressions of the surface of the rocks, or in the old pre-existing valleys, and as the rivers of a country naturally follow the same course, it was from these loose and coherent materials that a river derived its store of gold. In examining a river for gold, it was the inside of their bends, where sand banks and spits were accumulating, or wherever the force of the current was slackened, and the materials carried by it are consequently dropped, that should be first searched. Similarly, where a river has cut down through the drift to the solid rock below, especially if hard sitting ribs of rock stretched across it, as is often the case, gold was most likely to be dropped on the upper side, and in the holes and crevices of the rocky bars, where they check the force of the stream, and caught any heavy matters that might be rolled along at its bottom. Rivers were, indeed, great natural cradles, sweeping off all the lighter and finer particles at once, the heavier ones either sticking against natural impediments or being left wherever the current slackens its force or velocity. By keeping these principles in mind the searcher for gold would often be able to hit upon the most likely spots to prove rich in gold in a river bed. Explorations carried on in the general drift spread over a country were called "dry diggings," those in the bed of a river "wet diggings." Turning the bed of a river, wherever such a manœuvre was practicable, was like a miner examining the bottom of his cradle, and if it happened to be done at the right spot, there were several natural "cleets" or holes in the rock for the gold to drop into, it was likely to be rewarded very richly by the accumulated result of centuries of natural gold washings. Gold washing, or the extraction of golden fragments from the drift of a country was much more profitable than gold mining. In gold mining vast quantities of hard rock had to be quarried and removed, to be crushed by powerful machinery, and to be washed over and over again, or to be treated by other expensive processes; while in gold washing, separating gold from drift, all the mining and the crushing and a good part of the washing and sorting of materials had been already done by nature.

Mr. Jukes then proceeded to give a sketch of the geological structure of Australia, interspersed with descriptions of its natural scenery, the character of its climate, vegetation, hills, mountains, and rivers. He exhibited the original maps and sections of Count Strzelecki, of whose talent and industry he spoke in high terms, regretting that the results of his labours had not been published in a fuller and more adequate

form than they had been. Gold had, hitherto, been found only in New South Wales and Victoria, in spots upon the flanks of the Great Eastern Chain, and had only been found in the neighbourhood of igneous and metaphoric rocks. All the accounts of the various diggings spoke of either gneiss or mica slate, or some schistose rock in the immediate neighbourhood, and of granites and other rocks. Sir R. Murchison, in 1844, spoke of the probable auriferous character of the Great Eastern Chain of Australia, being led to that conclusion by his knowledge of the auriferous chain of the Ural, and his examination of the specimens brought home by Count Strzelecki. In consequence of these observations being published in the Sydney papers, a Mr. Smith, engaged in some iron works at Berrima, searched for gold and found it, and laid it before the colonial government. In consequence of some misunderstanding this discovery was taken little or no notice of; and it was only when Mr. Hargraves bringing with him the prestige of his Californian experience, announced the auriferous character of the country near Bathurst, that the matter was seriously thought of. Summer-hill Creek and the Lewis Ponds River, on the flanks of the Corroboras, were the first spots, then the Turon River, all tributaries of the Macquarie River. Since then many spots have been found more or less rich in gold from the Grafton range and the Burnett River, north of the Condamine, by Stanley Creek and Canning Downs, all in the Moreton Bay district, by Liverpool Plains to the Abercrombie River, the Shoalhaven River, Lake Ernie, in the Australian Alps, down to Mount Alexander and Ballarat, north-west of Port Phillip. In some diggings the auriferous sand had been reached under twenty or thirty feet of hard sand and gravel compacted together by ferruginous concretions; in others it has been got nearer the surface. The various spots at which the gold had been found were then referred to and pointed out upon Mr. Arrowsmith's map, appended to the report just issued to Parliament.

The lecturer, having described the geological character of various other portions of the island, concluded by stating that his object had been but to give such a rough notion of the structure of Australia, and of the geological facts and principles that ought to guide anyone in his search after gold, as might be of use to those present who were intending to emigrate for the purpose of searching for gold, and to such persons, he might, perhaps, be allowed to utter a word of advice. Gold digging was very hard work—just such work as they saw navigators at in a railway cutting, or brickmakers in digging a brick pit. They would have to work hard all day, lie hard all night, with but little shelter and no comfort. If they found they had no luck, or if their strength, health, or resolution failed them, they must not, however, give up or despond altogether—they went out to dig for gold, and ought not therefore to be ashamed to dig for anything else. To those unaccustomed to manual labour he would say, "Recollect that hard manual labour is the avowed object of your voyage, and the only thing you have to trust to. If you fail to dig up gold, there are lands to be ploughed, sheep to be herded and sheared, cattle to be tended, corn to be reaped—all of them as honourable occupations as that of a 'gold digger.' Go then with a bold and resolute heart, determined to get your own living by the strength of your own arms, and the sweat of your own brow, and be assured that industry and perseverance lead to fortune in Australia with fewer impediments and uncertainties than perhaps in any other part of the world." The lecturer was loudly applauded at the conclusion, and in various parts of his very interesting address.

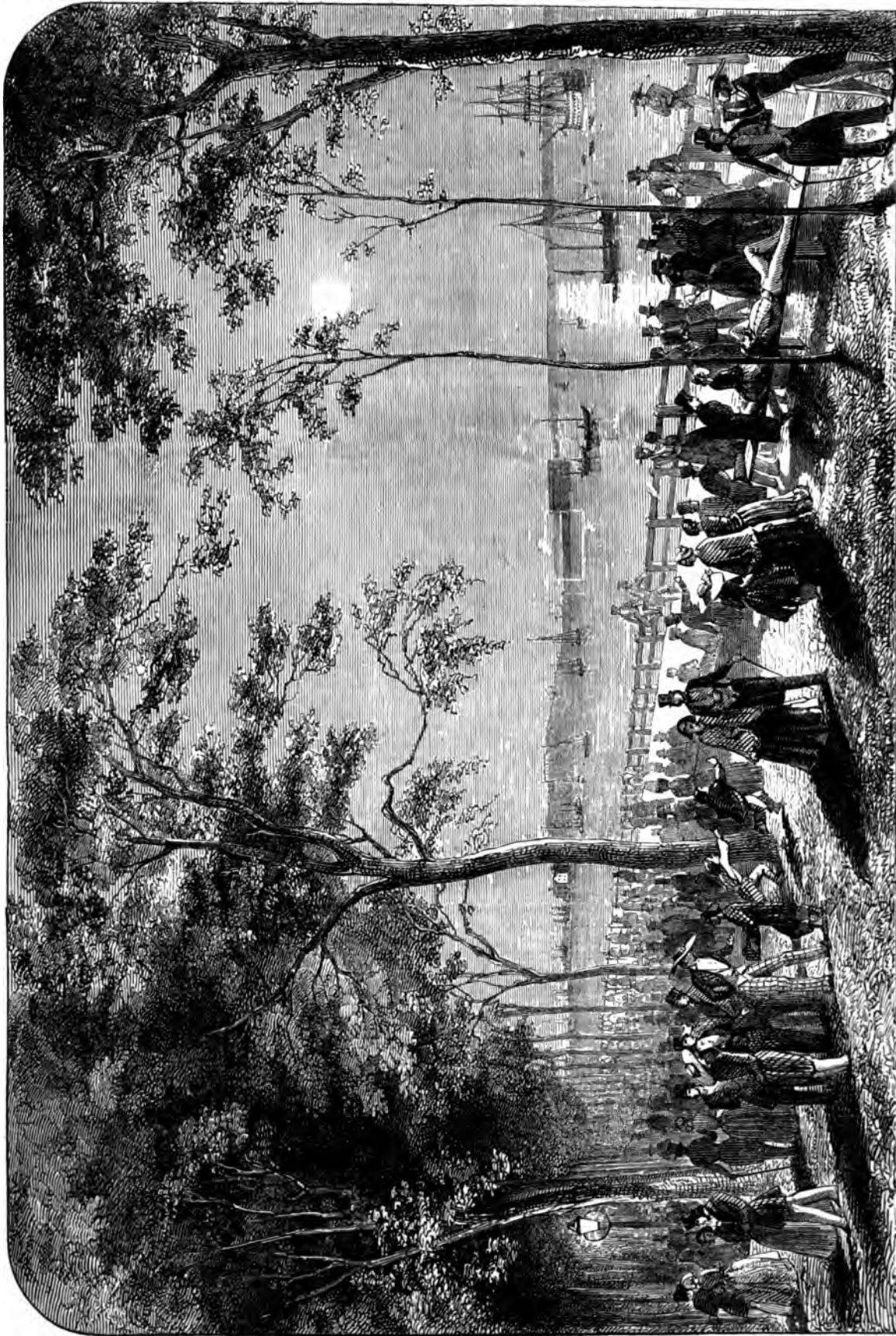
SONNETS—BY CALDER CAMPBELL.

I.

THE chain, which binds the slave to wheel or oar,
Contains no fetters that can check the soul
From wandering freely to whatever goal
May tempt its flight or lure it on to soar
Heavenwards, from earth and all the rush and roar
Of human conflict and the rude control
Of circumstance! The darkest clouds, that roll
On high, have flowers beneath them; and the shore
Is safe, with danger in the deep at hand:
Life's every ill hath in some good a neighbour—
A contrast, eloquent as Age and Youth!
And thus God fits us here to make our stand;—
The body, lingering in pain and labour,
The mind, far travelling in search of Truth!

II.

Who sees no light but light to find his way
In the meek lustre of the moon and stars,—
Who sees no depth but shallow in the bars
That come from Cloudland o'er the sun, in play
Or stormy wrath,—who sees not day by day
In tree, or flower, or weed, that springs before him,
More than mere growth,—shall never know the way
Whereby to rule true hearts, and gather o'er him
Such robes of thought poetic as array
Wisdom's fair majesty. Oh! be thou sure
That truth and beauty and high love still keep
Their place in brightest natures, where the ray
Of sweet Imagination shineth pure:—
For wise men dream whilst idiots only sleep!



THE BATTERY NEW YORK, BY MOONLIGHT

Situated on the Atlantic, New York is completely sheltered from its turbulence by a group of intervening islands, which screen the ocean from its view. Its only water prospect is that afforded to it by the noble bay into which it projects. Nothing can surpass the security of its position, or the safety and practicability of its approaches. The Hudson river, after running a lengthened course due north and south, expands about forty miles above its embouchure into a spacious estuary, designated by the Dutch colonists the Tappan Zee. The western, or New Jersey shore of this estuary, after running a considerable distance further to the south than the opposite bank, takes a long sweep to the eastward, terminating in the heights of Neversink, on the Atlantic. The east, or New York bank, runs parallel with the other, until it abruptly terminates at the Battery, which is the most southerly point of the city. Though once, of course, used as a point of defence, as its name implies, the Battery is now chiefly noticeable as the most delicious retreat and favourite promenade in the vicinity of the great ocean city of the West.

THE FOURTH OF JULY.—ANNIVERSARY OF AMERICAN INDEPENDENCE.



THE Fourth of July, 1776, marks one of the most momentous epochs in the history of mankind. On that day a few merchants and country gentlemen (who, at a race or assize ball of one of our aristocratic counties, would have been looked upon as of doubtful rank), promulgated a document that founded an empire larger than that of "insolent Greece or haughty

and gave a seal to principles that will ultimately revolutionize the world; and re-
the condition of the race.

there cannot be a fitting exercise for our minds than the deration of great and great events, all devote a small to suggest to our some of the pro- causes and conse- of "The Declara- f Independence of ited States of Ame- n Congress assem-

There is no history that better repay perusal than that of the British in North America; means of study are abundantly abundant. It emphasizes the career and descent of numerous men, the names of whom are as familiar to the entire world as those of the heroes thousands of years have consecrated. The names of Washington, Franklin, and Adams, are as widely diffused as of Alexander, and Napoleon; and the world is beginning to attach to the promoters of civilisation a greater fame than to the warlike. History gives us, as it were, the biography of society, and we perceive how much states and nations owe to individual excellence and genius. We are also enabled to trace step by step the progress of civilisation; and watch the process by which the handful of its enlarges into a powerful nation. If the proper study of



GREAT SEAL OF CALIFORNIA.

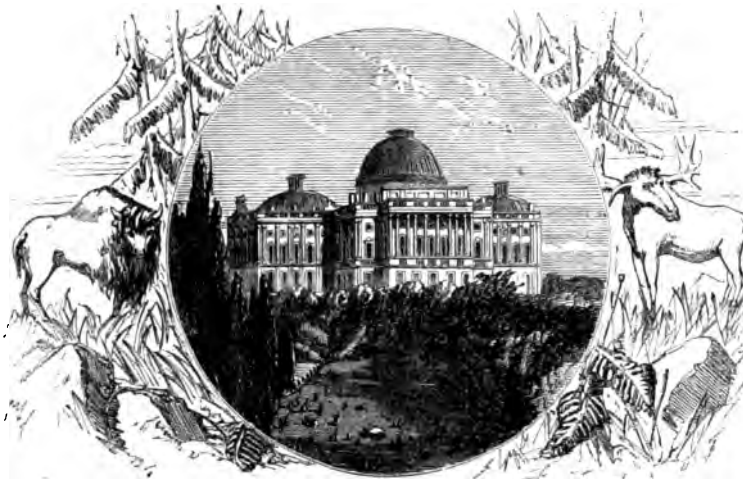
is extensive enough for a European kingdom. The suggestions live as well as to the historian, are profoundly interesting, and a unity and brotherhood for the race that is cheering and con- in the extreme. The Christian mode of producing universal is placed in strong contrast with the heathen, and produces not a despoticism, but an ennobling freedom.

Declaration of Independence by our brothers in America must be regarded as the culminating point of the long struggle which the world had made against his conqueror; of reason, as opposed to force; and as of law and justice, against the will and dogmas of force and force. It was the working out on a foreign soil the

efforts made against personal domination by our conflict of 1640—1648. The spirit which animated Hampden and Pym animated Adams, Franklin, and Washington; and they were supported in a like manner by the good, the brave, and the just of their country.

The Englishmen in America were the same as the Englishmen here; they were not excited by any crude speculations of political empiricism. It was not their aim to create a Utopia; but they did what their race has always done, they stood upon their old ways, they held tenaciously to their own. They had made a nation out of the forests; they had turned Indian hunting grounds into an empire. They had left their country unassisted; and sought for freedom of worship, and freedom of commerce in regions which had but lately been revealed to the old world. Here, unmolested, they had flourished as Catholic and Puritan; as Royalist and Republican side by side. In this spacious region the most opposite and the most explosive spirits could mingle. The world, that is the old world, forgetting, and by it forgot; except when adventurous traders pushed out into the rich wilderness; or the government gave away its governments and its lands to discontented or dangerous aristocrats; sometimes, also, banishing its convicts to mingle with young thriving colonists. Here they dwelt and flourished; prosperous

by their own industry and energy; and of sober and honest life: politically virtuous, indeed, but for one damning stain that, born of avarice, still remains a dangerous cancer in their state. Whilst we would celebrate the 4th July, 1776, we must not ignore the June of 1620. When a heavy-built Dutch ship, rolling into the James River, brought with it a dusky cargo of human beings, black and heathen, and bartered them for tobacco and gold, a virus was introduced into the young political system which has marred the otherwise spotless beauty of the history of the earliest colonists. A shadow was cast on their Christianity; and the glory of the 4th of July was dimmed by the



WASHINGTON, THE CAPITOL.

partial and limited justice that dictated the Declaration.

Still it is a glorious demonstration of the principles which sooner or



John Quincy Adams

later must regulate all governments; and it stands out in bold practical relief against the untenable declaration of the Rights of Man, promulgated by theoretical politicians. The American Declaration partakes of its origin. It was the enunciation of men of sense, who, driven by the force of circumstances, found it necessary to search into the principles which governed them; and being threatened and oppressed, were obliged to frame for themselves new political arrangements.

The men destined to accomplish this great deed were singularly well adapted for this important function. They consisted of between two and three millions of men divided into thirteen provinces, which extended along fifteen degrees of latitude, and extended inwards over regions of vast extent and boundless fertility. This was a territory worth battling for. They were individually well trained. Every colonist was a hunter, an agriculturist, or a sturdy artisan. Every one lived by his labour, and was fond of it. The forest bowed before them, and the rough earth was made to yield its produce to their brawny arms. In such hands, military weapons were powerful; the exchange from the axe to the sword; and from the rifle to the musket, was but slight.

Looking at the map of this wonderful region at the present day, the state of Virginia seems on the seaboard, and the cultivated regions to the westward stretch far into the broad continent. But a hundred years since, however, and this was an undeveloped region; and he who was subsequently the greatest of American champions, was then engaged in penetrating into the dense forest; and surveying the boundless waste of mountain, savannah, and morass, that lay before him. Mount Vernon, the family seat of Washington, now the shrine which every enlightened traveller visits, was then on the extremity of the region of civilisation; and the Potomac winding its way through the Blue Mountains, became lost to the enterprising planters, and entered on a region that was the prey of the squatters and vanguard of those who were to carry the language, and laws, and customs, of Britain, to the western shores of the mighty Mississippi.

It is not our business to indicate even the course of the conflict that resulted in the emancipation of this great nation; we would only call attention to the glorious subject, and recommend the works that illustrate it to the earnest attention of our readers. Amongst the numerous histories that have been put forth, we know of none which sheds more light on the details of the contest than one lately issued by the Rev. C. W. Upham, which comprises the life of Washington as set forth by himself in his diaries and correspondence.* In this work the great man tells his own story; and the occurrences are narrated with all the feelings and colour of the time upon them. Though full of interesting and important matter, it contains but little that relates to the "Declaration of Independence," as Washington, though heart and soul with it, was then generalissimo in the field.

As the Declaration is a document which contains the very foundation of the United States' subsequent legislation, we shall give its vital clauses. It was said to be the actual composition of John Adams, an undeniably great man. But Franklin, Jefferson, Henry, and all the other great legislators then in Congress, have a joint claim to the honour of promulgating its important principles.

It commences by saying that it is becoming to state the reasons for the separation from the parent state; and then goes on to lay down the following fundamental principles:—

"We hold these truths to be self-evident:—That all men are created equal; that they are endowed by the Creator with certain inalienable rights; that among these are life, liberty, and the pursuit of happiness; that, to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed; that whenever any form of government becomes destructive of these ends, it is the right of the people to alter or abolish it, and to institute new government, laying its foundation on such principles, and organising its power in such form, as to them shall seem most likely to effect their safety and happiness. Prudence, indeed, will dictate that governments long established should not be changed for light and transient causes; and accordingly all experience hath shown, that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed: but when a long train of abuses and usurpations, pursuing invariably the same object, evinces a design to reduce them under absolute despotism, it is their right, it is their duty, to throw off such government, and to provide new guards for their future security. Such has been the patient sufferance of these colonies, and such is now the necessity which constrains them to alter their former systems of government."

The Declaration then describes the course of conduct that had been pursued against them by the British government; and certainly the array of charges is sufficiently formidable, and bespeaks as much bad policy as feeling. It may be remarked that the language is purposely strong, and smacks of the policy of 1640, it being the evident intention of the leaders that it should render further negotiation impossible. It concludes as follows:—

"In every stage of these oppressions we have petitioned for redress in the most humble terms: our repeated petitions have been answered only by repeated injury. A prince, whose character is thus marked

by every act which may define a tyrant, is unfit to be the ruler of a free people.

"Nor have we been wanting in attention to our British brethren; we have warned them from time to time of attempts made by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here; we have appealed to their native justice and magnanimity, and we have conjured them, by the ties of our common kindred, to disavow these usurpations, which would inevitably interrupt our connections and correspondence. They, too, have been deaf to the voice of justice and consanguinity. We must, therefore, acquiesce in the necessity, which denounces our separation, and hold them, as we hold the rest of mankind, enemies in war, in peace friends."

"We, therefore, the representatives of the United States of America, in general congress assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the name and by the authority of the good people of these colonies, solemnly publish and declare, that these united colonies are, and of right ought to be, FREE AND INDEPENDENT STATES; that they are absolved from all allegiance to the British crown; and that all political connection between them and the states of Great Britain is and ought to be totally dissolved; and that, as free and independent states, they have full power to levy war, conclude peace, contract alliances, establish commerce, and do all other acts and things which independent states may of right do. And for the support of this declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our lives, our fortunes, and our sacred honour."

It was signed by the members of the Congress, and being promulgated, was received with boundless enthusiasm. It was, however, not until six years after, that it may have said to have borne fruit, when on the 20th November, 1782, the preliminary articles of peace were signed, though the actual cessation of hostilities did not formally take place until the 19th April, 1783.

As there are many persons who value a thing by what it has cost, rather than by its intrinsic value, we will try to bring down this inestimable document to a tangible price. It has been estimated that it cost no less than 124,000,000*l.* of money, and 150,000 lives. Of which, Britain lost 117,000,000*l.* of the money, and at least 80,000 of the lives. On whose head the moral responsibility of the loss of so much blood and treasure rests will be decided according to the political tendencies of the reader.

The full product of the Declaration cannot be said to have been matured until the Federal Constitution was ratified in 1788. This may be considered as the consummation of the principles enunciated in 1776, and a few words on this great experiment in politics will not be out of place.

The effect of so vast a success, and the establishment of a great republic, could not pass without alarming the fears and exciting the anger of the advocates of monarchy; and we consequently find, not only at the despotic courts of Europe, but in our own parliament, a long succession of diatribes against the new state. At first it was decided as an impossibility; and when its existence disproved this arrogant assertion, it was then said it could not last. And even at the present day, notwithstanding the astounding wonders exercised under this government, there are many who still hope so extraordinary a federation will fall to pieces, and be split into a number of contending and declining states. Should this be so, we cannot think it will at all militate against the utility and excellence of a federal constitution, under which a population in eighty years has been advanced from two to twenty millions, and a sixth of the earth been brought under the dominion of civilisation.

Its greatest men soon perceived the important experiment they were entering on. When called upon to preside, Washington almost shrunk from the responsibility; feeling, as he said, "that the preservation of liberty and the fate of the republican form of government are justly considered as deeply, perhaps as finally staked on the experiment trusted to the American people." But it might have been added, they were only carrying out to its ultimatum the doctrine that placed the House of Brunswick on the British throne, that "the source of all power is the people."

Several powerful minds have studied the problem of the States' government, and amongst the most impartial of them may be mentioned Dr. Channing and M. de Tocqueville; both of whom, though keenly alive to the dangers which beset such a constitution, express their unshaken faith in its vitality. They say, it was a growth, and not an invention; it is but the enlargement of the constitution which governs each State; and it is concerned only about matters which are of common interest to all the States. It treats of peace and war; of intercommunication; of questions of public law between the States; and has a supreme judicial power; and it leaves to each separate State the management of its own affairs; so that there is no enervating centralisation, whilst there is a means of general legislation which is beneficial to all. It rests on the social system of the States, which is based on the universal education of the people; on the suppression of artificial distinctions; on municipal institutions; on perfect liberty as to religious observances, and on a freedom which arises from the non-existence of any of the feudal arrangements which tend to perpetuate aristocracy; such as the laws of primogeniture, and the corrupt patronage attendant on a powerful monarchy.

Dr. Channing, with the simplicity and the force that characterise

* The Life of General Washington, First President of the United States, written by himself, comprising his Memoirs and Correspondence, as prepared by him for publication, including several original letters now first printed. Edited by the Rev. C. W. Upham. 2 vols. fcap. 8vo. 227, Strand.

him, points out, in a few masterly sentences, the advantages, and consequently the securities, of the Federal Union. He says, "it contributes to our defence against foreign states, but still more, it *defends us from one another*." He then points out the physical circumstances that tend to cement the union, the possession of a common language, a boundless territory, and an energetic race of men. We may add an outward cause, which we have no doubt has its effect on the pride of the nation; the jealousy that the rest of the world feels towards this great example of republicanism, and the joy it would disseminate amongst despots should it break into pieces.

But surely all things speak of the long success and prosperity to the great Federal republic; and Nature and Art seem alike to vie in furnishing her with fresh means of vitality and vigour. Railroads, steam, and electricity give her the compactness of a small territory. The invention of dangerous engines and the discovery of new combustibles give force to her centralising powers. The influx of the precious metals gives steadiness to her commercial energy. The vast immigration from Europe brings her an industrious population. The promulgation of a more enlightened Christianity, and the rapid discoveries of science, all tend to elevate and consolidate her people, and to diffuse a profound appreciation of the excellence of the government, and the political principles, which have not only done so much for herself, but for mankind.

Exciting as the theme is, animating as it is to dive into the wonders of this great nation, we must conclude; and cannot do so without reiterating that the anniversary of the 4th of July 1776 should ever remain a white and glorious day in the calendar of all well-wishers to the progress and happiness of mankind.

THE GREAT SEAL OF CALIFORNIA.

THE Great Seal of the State of California, as adopted by the Convention held at San Francisco on the 5th of October, 1849, and of which we give an engraving, was designed by Major R. S. Garnet, of the United States army. Around the bevel of the ring are represented thirty-one stars, being the number of the states of which the union consisted, upon the admission of California. The foreground figure represents the goddess Minerva, having sprung full grown from the brain of Jupiter. She is introduced as a type of the political birth of California, without having gone through the probation and condition of a "territory." At her feet crouches a grisly bear, feeding upon clusters from a grape-vine, which, with a sheaf of wheat, are emblematic of the peculiar characteristics of the country. A miner is engaged at work, with a rocker and bowl at his side, illustrating the golden wealth of the Sacramento, upon whose waters are seen shipping, typical of commercial greatness; and the snow-clad peaks of the Sierra Nevada make up the background. Above is the Greek motto, "Eureka" (I have found it), applying either to the principle involved in the admission of the State, or the success of the miners at work.

MORALS AND SOCIETY IN SYDNEY.*

IN the vicinity of Sydney, and on all the principal roads in the interior of the colony, bushrangers are frequently committing depredations. They are generally well armed and mounted, and go in bodies of from two or three to half-a-dozen. Their main object being plunder, they seldom commit murder unless they are resisted in their attempts at the commission of robbery. Within the last few weeks they have two or three times stopped and robbed our mail-coaches loaded with passengers. I almost forgot to tell you, that with very few exceptions, these bushrangers are convicts who have run away from their masters, or broken away from government iron-gangs, and taken themselves to the bush (the woods) to procure a livelihood by robbery. A large majority of them are Irish Roman Catholics. Throughout the interior, and even in Sydney, they find numerous receivers for their stolen and robbed property. These receivers not only harbour them, but provide them from time to time with supplies of ammunition, food, and clothing, and inform them when valuable stores are about leaving Sydney, and by what roads; also, what gentlemen are supposed to keep money in their houses, and how such gentlemen could be most easily robbed.

The two prevailing vices here are drunkenness and avarice. These are our besetting sins. From these two sources proceed almost all the crimes which stain the annals of the colony. That drunkenness is common, you may reasonably infer from the enormous sum of money paid as duty here on imported and colonially-distilled spirits. In the year 1836, the consumers were 62,925 in number, and yet the direct revenue from ardent spirits amounted in that year to 127,000*l.* showing that every male and female throughout the colony, above twelve years of age, paid in direct taxation, for ardent spirits alone, more than 2*l.* Any man who is addicted to the free use of intoxicating liquors, has overstepped the barrier which the dictates of reason and the obligations of religion have interposed between him and the commission of crime; drunkenness obliterates the line of demarcation between good and evil; and the drunkard having thus wilfully resigned the guidance of his reason, is ready, when temptation offers, to purchase the indulgence of his passions at whatever hazard, either to his body or soul. As some of the offsprings and concomitants of

drunkenness, cursing and swearing, ribaldry and blasphemy, annoy the ear wherever you go. Temperance societies and total abstinence societies are here supported by large numbers of consistent members; but the great majority of these members have never been drunkards, and they joined these societies for no other purpose than to set a good example. The great body of drunkards, young and old, still cling to their vicious habits; the moral leprosy is perpetuated, filling our country with crime, our gaols with inmates, and our grave-yards with food for the worm.

But avarice, that "*auri sacra fames*," is neither less common, nor in its results less detrimental to the interests of morality and religion, than is drunkenness. Money, money, money. Nothing is considered disgraceful here but the want of money. It covers an immense multitude of sins. Acts of swindling, if cleverly done, do not here, as in England, exclude a man from society, and brand him with infamy; it is only poverty that excludes even one brother from the house of a richer brother in Botany Bay. In this colony it is

"Cash makes the man, and want of it the fellow,
The rest is all but leather and prunello."

In order to convince you that I am not dealing in general assertions unsupported by facts, in stating that swindling, cleverly committed, does not here exclude a rich man from high life, I will copy at random, two or three authentic anecdotes, from a collection of some scores which I some time ago gathered, as illustrative of Botany Bay morals. About six years ago, Mr. —, who is a Sydney merchant and bank director, attended a land sale of town allotments, on the Paramatta road, at a place called Burwood, within six or seven miles of Sydney, when he entered an adjoining public-house, kept by a man named C—, to whom Mr. — stated that he came up for the purpose of buying some allotments, which were situated contiguous to C—'s property, on which C— requested him, as a particular favour, not to do so, as he himself intended to buy them, and that he could hardly do without them. It was ultimately agreed that the bank director should receive 50*l.* for not opposing C— at the sale. A cheque for this sum was given to the director. The sale proceeded. The allotments were bought, not by the director, who stood looking on, but by a person in his employment, for they were marked down in the auctioneer's book in Mr. —'s name. The publican was furious, took his horse and galloped to Sydney to stop the payment of the cheque at the bank: but Mr. —'s horse was the better goer of the two. It was after bank hours before either of them arrived; yet Mr. —'s influence as a bank director having readily secured him a hearing, he received and pocketed the 50*l.* before the thick-winded publican could obtain an audience.

A few years ago a respectable settler, living with his family on his own purchased farm of upwards of two thousand acres, on the Hunter's River, mortgaged his land to Mr. B—, of Sydney, for about 800*l.*, to enable him to purchase live stock, which was then selling at a very high price. In consequence of the price of live stock falling soon afterwards, and his land yielding him nothing, he was unable, not only to pay the mortgage, but even the interest. Mr. B—, the mortgagee, advertised the estate for sale. The settler had been ill and confined to his house; yet, on seeing his house and lands advertised for sale, he contrived to come to Sydney. He was too late. The sale was over. A Mr. —, a Sydney merchant and bank director (not the Burwood-town-allotment gentleman above referred to), attended the sale in the settler's name, and addressed the people assembled in the auctioneer's room in nearly the following terms: "You are perhaps aware that the property which is now about to be here offered for sale belongs to a most worthy and industrious settler, an old acquaintance and friend of my own, who has a numerous small family depending upon him for their support. This is his only property,—his house and home. If he loses it he is thrown destitute on the world. My object in attending here this day is, if possible, to buy in the estate for this worthy family."

This short speech was effectual. It appealed to the best feelings of our nature; and I am certain, that if you had only seen the long-faced solemn-looking director, you would not for a moment have doubted his sincerity. The estate was put up for sale at only the amount of burdens, about 1000*l.*, on it. There was no bidder. The bank director offered the upset price. The estate was knocked down to him. The deeds were made over to him, and immediately afterwards he sold the same estate for about 2500*l.*, pocketed the money, and laughed both at the settler and at the people whom he had so cleverly duped in the auctioneer's room. The settler, whom I knew intimately, called on me a few days after the sale, when he told me the above particulars. This affair seemed to have broken his heart. As he had no money, the lawyers would do nothing for him. Were the law of libel what it ought to be, I would here give in full the names of the two bank directors who figure in the foregoing anecdotes; but Lord Tenterden has long ago decided, that the more true the statements are which affect private individuals, the greater is the libel.

It would not be fair to conclude these remarks without mentioning the fact, that the state of morals in New South Wales has been greatly improved within the last few years. This salutary change has been produced by a variety of causes, such as the large numbers of reputable emigrants that have arrived here within these few years. The combined efforts of an increased number of clergymen and schoolmasters have greatly tended to neutralise convict influence, and reduce these black sheep to their degraded level.

* From the Rev. D. Mackenzie's "Ten Years in Australia."

THE NEW PALACE OF WESTMINSTER.*—THE ROYAL GALLERY, THE THRONE, ETC.

THE engraving on this page represents her Majesty with Prince Albert and the Court entering the Royal Gallery from the Robing-room, on the occasion of opening or closing the session of Parliament.†

THE ROBING-ROOM.

The Robing-room is a lofty and spacious apartment, with a canopied throne (a temporary erection) at the further end, opposite to which is

the only pictorial illustration the apartment has yet received, Mr. Dyce's fresco, from the "Legend of King Arthur." There are two doors to this room, one close upon the porch, the other nearer the throne; and her Majesty, entering at the former, comes forth at the latter into a noble hall, 110 feet long, 45 wide, and 45 high. This is called the Royal Gallery, and will be decorated with frescoes illustrative of the history of England, with windows filled with stained glass, and with a



THE ROYAL PROCESSION FROM THE ROBING-ROOM INTO THE ROYAL GALLERY.

ceiling rich in gilding and heraldry. This hall affords to great numbers of her Majesty's subjects an admirable opportunity of viewing the procession to and from the House of Lords, rows of seats rising one above another being placed on each side, and their occupants, chiefly ladies, contributing greatly to the interesting character of the scene. The Royal Gallery was opened for the first time on the first day of the session of parliament just closed; it leads to the magnificent apartment immediately behind the throne, and which it is now our business to describe in the detail its magnificence demands.

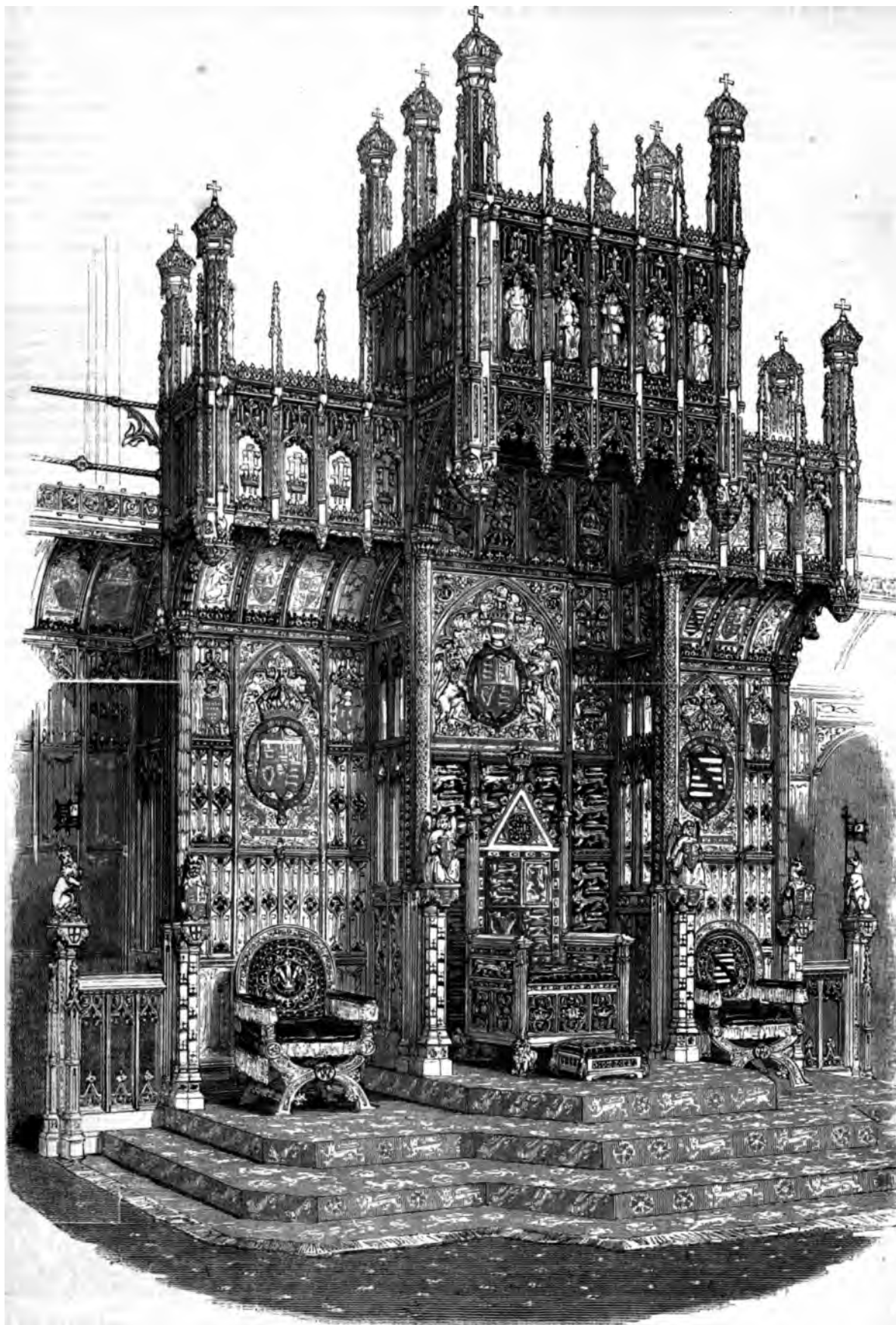
* Previous articles on the New Palace of Westminster, with numerous illustrations, appeared in Nos. 1, 2, and 9.

† The Victoria Tower and the approach to the Robing-room, will be illustrated and described in a future Number.

THE THRONE.

The Throne is elevated on steps, the central portion having three, and the sides two steps, covered with a carpet of the richest velvet pile. The ground colour of the carpet is a bright scarlet, and the pattern on it consists of roses and lions, alternately. A gold-coloured fringe borders the carpet.

The Canopy to the Throne is divided into three compartments; the central one, much loftier than the others, for her Majesty, that on the right hand for the Prince of Wales, and that on the left for Prince Albert. The back of the central compartment is panelled in the most exquisite manner. The three lowest tiers have the lions passant of England, carved and gilded, on a red ground, and above them, in a wide panel, arched, and enriched with quatrefoiling, are the royal arms of England, surrounded by the Garter, with its supporters, helmet and



THE THRONE IN THE HOUSE OF PEERS.

st, and an elaborate mantling forming a rich and varied background. The motto, "Dieu et Mon Droit," is on a horizontal band of a deep blue t. In small panels, traceried, parallel with the large arched one, are

roses, shamrocks, and thistles, clustered together, and crowned; above them, in double arched panels, the royal monogram, crowned and interwoven by a cord, are introduced. In a string course immediately

above. "Dieu et Mon Droit" is repeated, in perforated letters, and an exquisite brattishing of Greek crosses and fleurs-de-lis crests it. Above the brattishing is a series of five panels, with ogee arches, elaborately traceried, in them. The crests of England, Scotland, Ireland, and Wales, richly carved and gilded, fill the panels. The ceiling is flat, divided into many small squares, by ribs, having most delicately sculptured bosses at their intersections. In the centre, is the monogram V.R., surrounded by a border so beautifully designed and carved, that it defies all power of description. The flat surfaces of the ceiling are enriched by stars painted on them. As before mentioned, the overhanging canopy of the central division projects considerably before the sides, and is supported by spandrels rising from octagonal pillars, having small roses and fleur-de-lis wrought in trellis-work, with the most exquisite delicacy and marvellousness of execution, upon their several sides. The capitals of these pillars are peculiarly beautiful, excessively rich in design, having a coronal form, with floreated enrichments. The spandrels are enriched with quatrefoil tracery, and in their angles are representations of St. George and the Dragon, beautifully executed. The front of the canopy is divided into five deeply recessed niches, having ogee moulded arches, quatrefoiled; and, above them, between each niche, is an angular buttress, elaborately ornamented, rising from a foliated pendant, and terminating in a crocketed pinnacle. A bold string course of rich treillage is under the niches, and beneath it, and springing from the before-mentioned pendants, are traceried ogee arches, having quatrefoils in their angles. In the base of each niche is a brattishing of perforated Tudor flower ornament. Above the niches is another string course of elaborate detail, and the whole is finished by a brattishing of exquisite lightness of design. In the niches, on pedestals with floreated capitals, are figures of knights armed cap-a-pie, that in the centre representing St. George vanquishing the Dragon, whilst those on either side hold shields, in form resembling those used in the tournament, on which are emblazoned the emblems of the Knightly Orders of the Garter, the Bath, Thistle, and St. Patrick. The angle buttresses of this canopy have most elaborate pendants, the lower parts, octagonal, being sculptured as coronals, and on the fronts and sides are animals, whence rise angular buttresses of similar pattern to those between the niches, and serving as flying buttresses, above the topmost brattishing, to sustain octangular shafts, with canopied heads, on the summit of which are open-worked royal crowns. The sides of the canopy have deeply sunken panels, enriched with shields of the arms of England, Scotland, Ireland, and Wales, most beautifully carved, painted and gilded. Affixed to the pillars supporting the canopy, are octangular pedestals, ornamented with quatrefoils, and having canopied and groined capitals, on the faces of which are shields charged with the escutcheons of England, Scotland, and Ireland. Upon these pedestals are figures of winged angels, sitting, and holding shields with the arms of England enamelled upon them.

The panelling at the sides, on either hand of the Chair of State, consists of two rows of open-worked arches, with elaborate tracery, and above them other panels filled with floreated enrichments of the most exuberant fancy.

The side compartments of the canopy are alike in general architectural detail, but differ in heraldic insignia, the one side having the symbols of the Prince of Wales, blended with its architectural features; whilst the other has those relating to Prince Albert. Both compartments are a little in advance of the arched cove to the Peeresses gallery; but, like it, they both have coves arching over, and gilded; pillars of rich foil-work are at the angles of the canopy, and, from their beautifully carved capitals, in graceful sweep is the spandril to support the angle buttresses. Octagonal pedestals of precisely the same form and ornamentation as those to the central compartment, are affixed to the lower parts of these pillars, having small shields painted on their fronts and sides, with the red cross of St. George. On the pedestal at the Prince of Wales's side, is a lion holding a shield, on which the arms of England are displayed; and on that at Prince Albert's, is an unicorn holding a shield similarly charged.

The panelling is alike in both compartments, the lowest row containing fanciful bands, with rich foliage interwoven; the second and third series quatrefoils; and the fourth richly traceried ogee arches. Within the quatrefoils P. W. and P. A., respectively, are carved and gilded, relieved by a deep blue background. The arches in the upper row have shields of arms helmeted and crested with royal crowns. Tall arched panels with foliage in the spandrels, display the armorial bearings of the Princes, in all their glory of gold and colours, surrounded by the Garter, and having crowns above them. Exquisitely rich mantlings twine in varied form about the shields, and the gilded surface of the background is diapered. On blue labels, under the arms, are the respective mottoes, "Ich Dien," and "Treu und Fest," in slightly raised letters. The same mottoes are introduced in the string courses above the panelling, and above them a brattishing of like character to that which is carried round the House. The arched coves are each divided into four panels by enriched ribs, the two central panels containing shields helmeted and mantled, in which, in the Prince of Wales's Canopy are the armorial ensigns of the Principality, and the royal arms of England; and in the Prince Albert's are the escutcheons of Saxo Coburg Gotha and England; the two outer panels have lions and unicorns sitting, and holding banners displayed, on which are the triple ostrich feathers on an azure ground, and a red cross on a white ground, respectively. The fronts of the side compartments of the canopy are each divided into four panels,

having richly-traceried ogee arches within them, enshrining the ostrich plume of the Prince of Wales, and the plumed helmet of Prince Albert. Between the panels are slender angular buttresses, with pinnacles elaborately carved, but of different designs to the buttresses on the front of the Queen's canopy. The angle buttresses have exquisite coronal-like pendants, and are similar in arrangement to those described in connection with the Queen's canopy, terminating also in shafts surmounted by crowns.

Treillage work, and elegant brattishing are not spared in the decorations, as may be seen by our illustration. Stretching out on either hand, are dwarf wings, having three open-worked arches within them, enriched by quatrefoil tracery, and other decorations; and, at their extremities are octagonal pedestals supported by buttresses, with crocketed pinnacles. The pedestals have canopied and groined capitals, on which are seated the royal supporters, the lion and unicorn holding standards, the shafts of which are of twisted brass, enamelled with the arms of England.

THE CHAIRS OF STATE.

The Queen's Chair of State, or Throne, is particularly splendid in its enrichments. In general outline it is similar to the chair in which the sovereigns of England have been wont to sit at their coronations, but in detail it differs widely from its plain prototype. The legs of the Chair, resting upon four lions couchant, have pinnacled buttresses on each side, those at the back being, of course, considerably higher than the front ones. The base of the Chair is deeply moulded, and in the front and back are three sunken panels containing quatrefoils, having crowns in their centres, with sprays of roses, shamrocks, and thistles, radiating from them. In similar quatrefoiled panels at the sides the royal monogram V. R. is repeated. On a broad bar below the seat is a rich border of roses amidst leaves. The arms of the Chair are boldly moulded, and in the sunken panels beneath them, in pierced work, are lions passant, surrounded by most elaborate treillage. On moulded capitals, above the pinnacles to the back legs, a lion and unicorn are seated holding scrolls. The back of the Chair is gabled, of lofty pitch; and within it, in a circle, an exquisitely quatrefoiled ornament, of eight points, representing the monogram V. R. entwined by a cord; whilst, from a circular border, eight trefoil-shaped sprays radiate into the quatrefoil mouldings of the points. The angles of the gables are floreated. On the exterior ridge of the gable eight sprigs of roses are sculptured, and form a bold crocketing, whilst from its apex rises an octagonal moulded stem to support a richly-decorated crown. A broad border surrounds the square part of the back of the Chair, on which are, alternately, large and brilliant egg-shaped pieces of rock crystal, and lions within quatrefoils enamelled. The addition of crystals as enrichments to the Throne is a peculiarly happy idea, as the effect, the sparkling brilliancy they impart, is most charming. Within this border are the royal arms of England, worked in exquisite embroidery on velvet.

The State Chairs for the Prince of Wales and Prince Albert, are exactly alike in form and general details, the only variations being in the embroidery on the velvet backs, and in the monograms. The backs of the Chairs are circular-headed, and the legs are curved in the form known as the curule, or X-shaped, strengthened by bars. A most exquisite floriated pattern is carved round the back, and a similar one on the fronts of the legs, under which a boldly-carved flower sprays out. Similar flowers are at the angles of intersections of the legs; and in the front is a richly-foliated circular boss; and where the shafts for the arms take their rise, circular bosses, containing roses, are introduced. The shafts have moulded bases, and are enriched with carving in diamond-wise. The bars between the legs have small quatrefoils carved on them, and on the rims round the back, &c., a similar pattern is sculptured. The velvet backs are most magnificent specimens of embroidery, and in design command unqualified praise, elaborate ornament and appropriateness being so happily blended. We must describe the embroidery work of each Chair separately, and, of course, commence with that appertaining to the Prince of Wales.

Within borders of gimp, secured by rose-headed nails, is a broad circle, containing semicircles, having at their points trefoils; this surrounds a narrow band of blue, ornamented with white spots, and within this are worked the Ostrich Plume of the Prince of Wales, issuing from a coronet, and having the motto "Ich Dien" beneath it. In circlets on either side of the plume are the letters P. W. respectively. Within the eight semicircles, are worked alternately Greek crosses and fleur-de-lis, thus forming a regal coronal round the plume; and in the spandrels of the semicircles are quatrefoils. The cushion to the seat is of crimson velvet, and is richly embroidered.

Prince Albert's Chair has similar borders of gimp, and also a series of eight semicircles, within a broad border, terminating in trefoils; but the enrichments within these are of fleur-de-lis only, thus forming a coronal of lily flowers, instead of lilies and crosses. Within this circle the arms of Prince Albert are worked on a shield, and, in circlets at the sides of the latter, the letters P. A. are elegantly worked. The chairs were made by Messrs. Webb, of Bond-street.

As every portion of her Majesty's Throne, and the Chairs for the Princes is gilded, some idea may be formed of their excessively splendid appearance; and, standing as they do under a canopy of the richest design, glowing with gold and colours, they produce an effect absolutely bewildering, from its gorgeousness; and certainly no English Monarch ever sat upon a throne of such consummate magnificence as this prepared for her Majesty Queen Victoria.

MUSIC—ITS HISTORY AND INFLUENCE.*

IT was reserved for the great men of a later date, Handel, Haydn, and Mozart, to breathe majesty and life into the service of the Most High, in lieu of the feeble and cramped passages of the old authors of sacred music. When we compare these glorious compositions with the works of the middle ages, a new sense seems to have been created for us. Who can listen to "Angels ever bright and fair," without hearing the rushing of the golden pinions above and around him? and who can feel the touching notes of the "Agnus Dei" thrilling through his frame without bending his spirit low before the throne of Grace in prayer and supplication? A thousand passages of awful beauty and sublimity might be selected from the works of these undying names, to prove that their souls must have been bathed in the divine flood of religious fervour, ere they could have given to the world their wonderful inspirations.

There are men to be found (but the class is a small one) who think it almost impious to introduce the science of music in their chapels: they prefer the united voice of a congregation in tune, or out of tune, to celebrate the wonders of His name. No one can doubt the sincerity of their devotion, but it argues a peculiarity of ear, which makes them reject an influence, which raises most minds from the earthliness of earth, to mingle in thought with the seraphim and cherubim who surround the footstool of the *Mightiest* of the mighty. On some persons even the "Dead March in Saul," with its varied modulations, so wonderfully expressing the intensity of sorrow and the sweetness of consolation, would fail to make an impression. This proves no want of heart in the hearers, but simply a defect of organisation over which there is no control.

It was in the latter part of the fifteenth century, that an attempt was made to revive the nature of Greek dramatic art. Giovanni Bardi, a noble Florentine, assembled the literati at his house, and discussed the possibility of re-establishing the lyric drama; the father of the celebrated Galileo the astronomer, was one of the party, and offered at once to arrange a scene from Dante to the accompaniment of his own voice; the experiment elicited much applause, and other masters of the art used the same idea. In the year 1600, the first oratorio, "L'Anim' è il Corpo," was composed by Emilio di Cavaliere, and performed at Rome; at the same period the first opera, that of "Euridice," was performed at Florence, written and composed by Peri and Caccini. But it is in the opera of "Jason," written by Giacomini, and set to music by Cavella, that we first perceive airs possessing a melody differing from that of the recitative. These airs were a kind of minuet, written in the time of two-three, and varying repeatedly. A greater degree of progress is perceptible in the operas of Cesti, who, in his "Doria," composed 1663, introduces airs in which the talent of the singer might be displayed to advantage; soon after the taste of the public made the opera degenerate into spectacle, from the inordinate love of having the sight pleased as well as the ear; and at the end of the seventeenth century, no mention whatever was made of poet, musician, or singer, the machinist and decorator bearing off the laurels.

The scientific men of the day were mortified but not discouraged at their claims not being appreciated. But the secret of their disappointment lay in themselves; in their utter want of melody conformable



BY PERUGIA.



SACRED MUSIC.



TRAGIC MUSIC.

to the expression of the words. The illustrious pupils of Alessandro Scarlatti, who invented the *obligato* recitative, were more successful

* Previous article in No. 5, p. 65.

than their master; Leo, Vinci, Porpora, and especially Pergolesi, will ever retain the fame they earned. They were ably seconded by the poet's apostle, Zeno, and his beloved friend and pupil, Metastasio,

whose poems were full of delicacy and incident. Madrigal composers flourished also at the beginning of the eighteenth century.

In the year 1749, was born Domenico Cimarosa, at Aversa, a small town between Capua and Naples, where his father, a poor mason, had settled down during the time the Palazza da Capo di Monti was being built. The parents of Cimarosa lived in extreme poverty, in a wretched hovel close to the Franciscan convent of San Sereno. When but seven years old, Genaro Cimarosa fell from a ladder and was killed on the spot; the wife, distracted with grief, took her little son to her confessor, Padre Polcano, from whom she had so often received aid and consolation; nor did she then apply in vain. The good monk, who was organist of the convent, and who had long witnessed the virtuous struggle the parents of the child made against poverty, was so touched by the widow's tears, that he consented to take charge of the boy, who, at that early age, bore the impress of genius on his features. The Padre was not long in finding out that his little pupil would desert all his studies in eager attention whenever the organ was played; and as soon as he began to learn that instrument, he displayed so much taste and aptitude in music, that when he had reached his twelfth year, his kind protector sent him to finish his education at the conservatoire of Santa Maria da Loreto, celebrated for its pupils—Jomelli, Piccini, Paisiello, and numerous others.

At nineteen he left the conservatoire, where he had obtained unbounded success as a composer. His fame had reached Russia, where he was offered an appointment as music master to the nieces of the Empress Catharine. During his three years' sojourn in that country, he composed "Cleopatra," "La Vergine del Sole," and a requiem; but the severity of the climate affecting his health, he gave up the office at the Court, and went to stay at Vienna, where he composed his *chef d'œuvre*, "Il Matrimonio Segreto."

In 1799, whilst at Naples, he became implicated in the revolutionary disturbances, with which he openly sympathised; and when the French army withdrew, he was thrown into prison, and treated with a rigour that undermined a constitution never robust, and shortened his life. During his imprisonment, his food was of the coarsest kind, and all opportunities of practising his professional acquirements strictly prohibited; and he would in the end have fallen a victim to the rage of Caroline of Naples, but for the timely intervention of the Russian ambassador, who combated all difficulties in the determination to achieve Cimarosa's liberty. He left his prison walls for Venice, where he resided for a few months in great retirement, dying of a broken heart on the 11th of January, 1801, aged 51 years and one month.

Cimarosa's compositions are numerous. He wrote upwards of one hundred and fifty operas, buffa and seria, cantatas, oratorios, and masses. His best operas seria, are "Cajo Mario," and "Gli Orazzi e Curiazzi."

His favourite opera buffa, and on which he lavished much care and thought, was "Il Matrimonio Segreto." It is said by one of his biographers, that previous to his composing the celebrated song "Pria che spanti in ciel l'aurora," which opens the second act, he walked for a fortnight on the banks of the Danube in the early morning, that his soul might become refreshed by this contact with nature in all her loveliness, to enable him to embody more truly the feelings of youth and love which abound in the passages of that song.

A very few years elapsed before another star appeared in the musical world. Gioachino Rossini, a native of Pesaro, was the son of a strolling musician, whose wife was an under-singer at one of the inferior theatres. The young Rossini, self-educated, and relying on his acquaintance with the works of Haydn, Mozart, and Cherubini, composed when he was but twenty years old, his first opera, which was produced at the theatre Della Valle, in Rome, 1812. This was succeeded by "La Pietra di Paragone," a buffa, in which he made his *début*, in Milan. But "Tancredi," which was brought forward at Venice, with brilliant success, attracted great attention, and made his fame resound through every part of Europe. Frequently Rossini repeated himself, from the rapidity with which he contrived to execute the numerous demands made upon him for new operas; but in spite of his not always being original, his works are always before the public, and listened to with renewed delight. Bellini and Donizetti also appeared during the last few years to claim their share of fame from the multitude; but in a brief period they were taken from us, leaving us to regret that so few of their works were left behind.

Different in style, but bathed deeper in the gloomy flood of genius, arose Carl Von Weber, and afterwards Mendelssohn: both died young, sorrowing every heart at the recollection that these mighty spirits who woke up to intense delight every sleeping sense in our souls, were for so short a space permitted to remain in their mortality. They, who gave us such glimpses of the beautiful, the grand, and the sublime, now lie in the cold tomb, with their harps unstrung; but those unearthly overtures of "Der Freischütz" and "Oberon" will never be forgotten, nor will the airy forms that Mendelssohn created in his "Midsummer's Night's Dream," ever fly away. No future strides that music may take can trample down these exquisite inspirations.

It has always been asserted, that we are not a musical nation. It is quite true that England has produced no composers to compete with our foreign neighbours; but, at least, she has the talent of appreciation. Witness the enormous sums paid yearly to bring over continental singers and musicians of celebrity. Our national music is only adapted to hold power over the hearts of the English. Dibdin's sea-songs, which did so much towards manning our ships by the enthusiasm they created in the

navy, would never be understood in other lands. And here, at the present moment, "All in the Downs," and "The anchor's weighed," would be listened to without emotion.

Old Purcell and Mathew Lock, ever and anon, come fresh before us, forcing us into reverence by their sterling qualities, and the lapse of a century and a-half cannot diminish our admiration of these composers. Dr. Burney, in his criticism on Purcell, says:—"The duet in 'King Arthur,' 'Fairest isle, all isles excelling,' does not contain a single passage that our modern artists would reject. 'From rosy bowers,' written in his dying illness, seems to realize the poetical fable of the Swan, who sang the sweeter for his dissolution drawing near." He adds that "The artful yet pathetic modulation, and, above all, the exquisite expression of the words, render it the most affecting composition extant to every Englishman, who regards music as the voice of passion."

The variety of melody which exists in Lock's music of the Witches in Macbeth, requires no cultivated ear to enjoy it, and his name will ever be entitled to honour for having successfully lent his aid in interpreting some of the poetry of our immortal Shakespeare.

Dr. Arne was our first composer who invented the light, airy style of singing, which he introduced into the "Mask of Comus," performed in 1738. Twenty-four years afterwards, he wrote his "Artaxerxes," which, until lately, kept its place on the stage as a favourite opera for a young *début*. The fashion in the style of music in England, is nearly as capricious as that in dress. The rage for Bishop's operas and his beautiful ballads has quite subsided; probably because those enchanting singers, Miss Stephens and Miss Paton, have disappeared. Our present castrates scorn to encourage native talent, except Balfe's, who is a decided follower of the Italian school. Mac Farren is infinitely more original.

There is no doubt that the influence of music is spreading fast over the mass of the people. Our opera-houses and philharmonic societies have long been crowded by the noble and wealthy; and now we have Jullien's shilling concerts and Hullah's cheap instruction to create and improve the taste of the mechanical and lower classes.

(The vignette illustrations in this article are after bas-reliefs on the pedestal of the statue of Beethoven at Bonn.)

THE PORTLAND VASE.—IN THE BRITISH MUSEUM.

THIS exquisite production was originally known as "The Barberini Vase," from its having been, for more than two centuries, the principal ornament of the palace of the Barberini family. It was purchased of Sir William Hamilton by the Duchess of Portland, since which it has been known as "The Portland Vase." It formed the gem of the Portland Museum, which was sold by auction, in separate lots, by Messrs. Skinner and Co., on Monday, April 24, 1786, at Privy Gardens, Whitehall; and, in a preserved copy of the catalogue, we find the following note, made at the time of the sale:—

"The most celebrated antique vase, or sepulchral urn from the Barberini Cabinet at Rome. It is the identical urn which contained the ashes of the Roman Emperor Alexander Severus, and his mother, Mamma; which was deposited in the earth about the year 235 after Christ. It was dug up by order of Pope Barberini, named Urban VIII., between the years 1623 and 1644. The materials of which it is composed imitate an onyx, the ground a rich transparent dark amethystine colour, and the snowy figures that adorn it are in *bas relief*, of a workmanship above all encomium, and such as cannot but excite in us the highest idea of the arts of the ancients. Its dimensions are 9½ inches high, and 21½ inches in circumference. A more particular account of it may be found in 'Montfaucon's Antiquities,' Vol. v., B 2, Chap. vi.; in 'Bartoli delli Sepolchri Antichi'; in 'Brenan's and Misson's Travels'; and in 'Winckelman, on the Arts of the Ancients.'"

At this sale the vase was purchased by the Duke of Portland, for the sum of 1029 guineas, and was deposited by his Grace in the British Museum in the year 1810.

The first information we have respecting this vase is, that it was found, about the middle of the 16th century, inclosed in a marble sarcophagus, within a sepulchral chamber, under the mount called the



HANDLE OF THE VASE.

Monte del Grano, about two miles and a half from Rome, on the road leading to Frascati. This sepulchral chamber appears to have been

the tomb of the Emperor Severus, and of his mother Julia Mammæ; and the vase was probably a cinerary urn belonging to the sepulchre.



BAS-RELIEFS ON THE PORTLAND VASE.



BOTTOM OF THE VASE.

Bartoli, in his work on Roman and Etruscan sepulchres ("Gli Antichi Sepolcri," 1704), has given a sectional representation of the Monte del Grano, with the hollow sepulchre within, and the spot in which the



THE PORTLAND VASE.

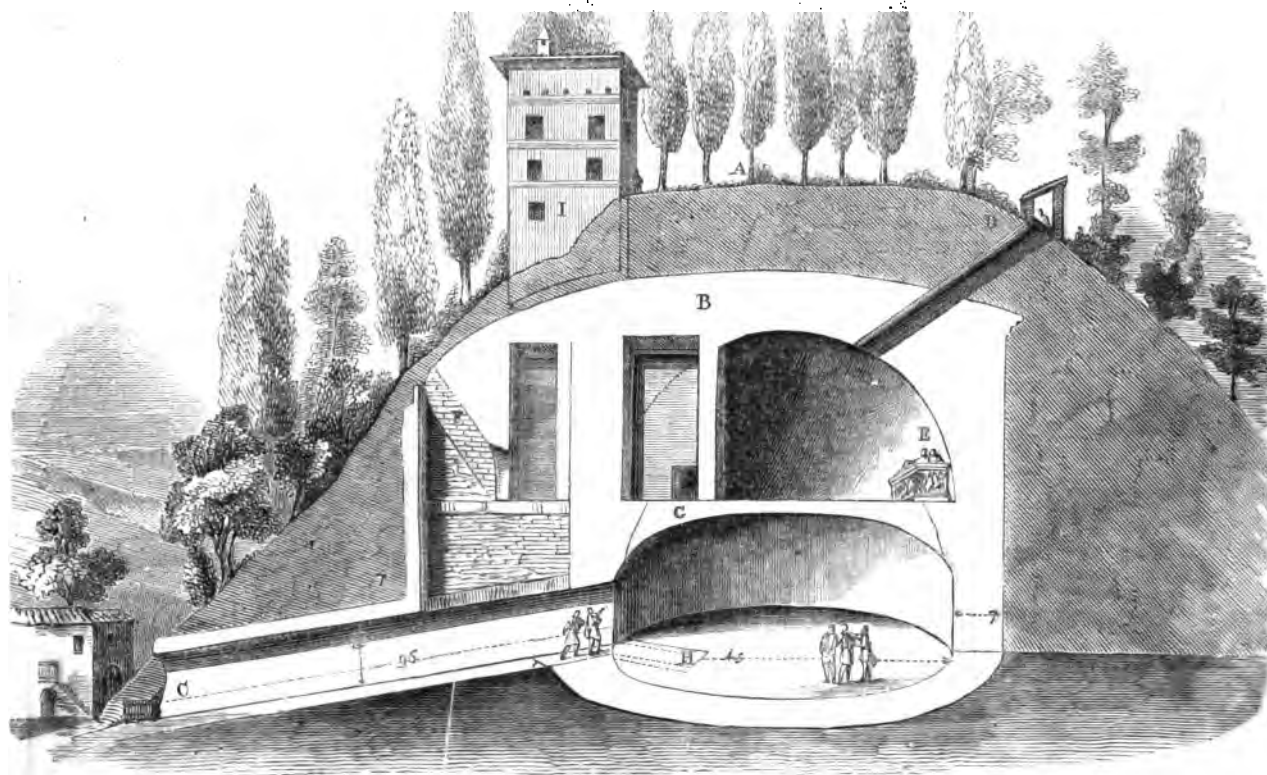
sarcophagus was found lying. We have engraved this plate below, and appended the references:—

A. The Monte del Grano, beneath which was the sepulchre: B. Tomb of Alexander Severus and of Julia Mamaea: C. the ancient entrance to the tomb; D. an aperture in the mass of the work of the vault, by which an entrance was obtained into the sepulchral chamber where the marble sarcophagus was found; E. the coffin, or sarcophagus; F. an entrance to a small chamber, with no other outlet; G. the arch of the chamber, at the level of the ground, broken in order to take out the sarcophagus, which was lowered by cranes, and drawn through the ancient entrance; H. dotted lines showing the plan of the upper chamber; I. a modern Casino, on the summit of the mount.

Probably few relics of antiquity have excited greater interest than this celebrated vase. There are various opinions as to its production. Mr. Wedgwood considered the figures to have been made by cutting

away the external crust of white opaque glass, in the manner of producing the finest cameos, and that it must have been the labour of many years. There have been likewise many conjectures as to the figures on the vase; among which the speculations by Dr. King and Dr. Darwin are not the least striking. The latter occupies seven quarto pages of notes to the poem of the "Botanic Garden," illustrated with four plates, the actual size of the vase and figures.

There are three scenes, one on either side of the vase, and one at the bottom. The first represents three exquisite figures seated on loose piles of stone under a tree near a ruined column, the capital of which lies, among other disjointed stones, at their feet. The centre figure is a female reclining, apparently greatly exhausted, or dying. She is supported by her left elbow, and in her left hand she holds an inverted torch, while her right hand is thrown over her drooping head. On her right hand is the figure of a man, and on her left the figure of a



SECTION OF THE SEPULCHRE, IN WHICH THE VASE WAS FOUND.

woman, but have their backs towards the reclining figure, and their faces are turned to her. They are both, apparently, in deep thought, and are resting on their arms. The other scene represents a figure passing through a portal with great timidity, and going down into a darker region, where a beautiful female is waiting with outstretched hand to receive him. She is seated with her feet towards an aged figure, who is resting his chin on his hand, and who has one foot raised on a column and the other apparently sunk into the earth. Between the knees of the female is a large and playful serpent. Preceding the first figure, and above the female, is a cupid, who is beckoning him to advance. The first figure appears exceedingly anxious to take with him a cloak or garment, which he is holding, and which adheres to the side of the portal through which he has just passed. In this scene there are two trees, one of which bends over the female figure, and the other over the aged one. The scene on the bottom of the vase represents another figure, either male or female, in a curious and cumbersome dress, with its finger pointing to its mouth, and on its head there is a Pargian cap. Above this figure is the foliage of a tree. This figure is on a larger scale than the others, but not so well finished or so elevated. Aged heads with ugly ears, like those of quadrupeds or satyrs, are represented on the handles.

In all probability, these scenes represent the progress of initiation into the Eleusinian mysteries, and the vase was very likely originally used to hold the holy water for the lustration of the candidate for the office of priestess, whose initiation is thus described in "Universal History," vol. VI, p. 3:—"A certain number of young women were brought up at the expense of the republic with all possible care, in order to be employed in the ceremonies to be performed at Eleusis. They were kept confined in the Tnesmophorion, a public building in Athens, watched by persons set over them to guard their virtue. After

this they went in procession to Eleusis, and there passed a whole day at the feet of the statue of Ceres, in fasting and prayer."

Now, in the first described scene, the centre figure appears greatly exhausted by watching, and the inverted torch which she holds in her hand, the flame of which is just expiring, is a symbol of the exhausted state of nature. The other two figures are apparently her guards, the female figure holding a rod or sceptre as an ensign of authority. The second scene represents the priestess fully initiated into the sacred mysteries, which is denoted by the serpent, the ancient symbol of wisdom and immortality, seated at the entrance of the temple, accompanied by the hierophant. She is leading a candidate forward to initiation, who is tightly holding a portion of his robe, which probably represents his lingering attachment to humanity. The figure at the bottom represents the priestess in her full robes of office, with her finger to her mouth, being the attitude of silence, denoting that she is enjoining the candidate to keep unbroken the mysteries into which she is about to be initiated.

We have engraved the vase entire: one of the heads from whence spring a handle; and the bottom; together with the bas-reliefs around the entire vase.

On the 7th February, 1845, a young fellow of the name of William Lloyd, whilst (as he himself alleged) in a state of excitement, the result of a course of intemperance, threw a stone at this valuable work of art, and smashed it into a thousand pieces. At first it was considered to be irretrievably destroyed, but we are happy to add that this fear has not been fully realised. By the aid of a cast which had been taken of it some years previously by Mr. Tassie, the pieces were carefully collected, and put together again; and, thus restored, the Portland Vase still continues to form one of the most interesting gems in the British Museum.

The Fine Arts.

ON TRUE AND FALSE PRINCIPLES IN DECORATIVE ART.

CONCLUDING LECTURE BY MR. OWEN JONES.

THE fourth and last lecture of Mr. Owen Jones' course related specially to the metal manufactures of the Marlborough House collection. The specimens produced were divided into Indian, French, and English specimens, which were severally discussed and compared, the Indian being shown to be most simple in form, the French less simple, and the English least so. Simplicity of form in the Indian specimens was shown to be allied to consummate art, whilst the characteristic of the French ones was consummate education in art, rather than simplicity. Indeed, Mr. Jones asserted that the metal workers of France were more perfect in their branch of study than any other artists. In modern metal work, the general rule was overloaded ornament, and this was done with as much disregard of the different styles of ornamentation as was shown by modern architects in the production of their works. It would be found that in these specimens, as in those which had already been under notice, nature was never represented but conventionally, the Egyptians being nearest to nature, which they varied by graceful arrangement, and the Moors the furthest, as was shown by the painting of the Alhambra. The Moors especially felt that great nature in ornamentation which consists in making every part a unit multiple of a sample, the result being grandeur and a fitness which were atained nowhere else, and enabled them to work with a certainty which they could not get otherwise. The Greeks had an unit of this kind, and recently Mr. Penrose had discovered that which presided in the erection of the Parthenon. As regards pottery, Mr. Owen Jones said that he had very few specimens to show them, the manufacturers having disappointed him, the year being so late that he might come down too hard upon them; but he apprehended that if he objected to their present fabrics, and induced his hearers to get better ones, he would be doing them a benefit, and not an injury. The Greek vases he could show them and the Egyptian ones, in all which it could be found how they those people steered clear of inconsistency by giving their figures outline only, for by shading, as was done at this time, we overstepped the bound of sobriety in the treatment of decorative art. I had become the fashion also to abandon the pattern wheel in producing forms; and whilst the modern Egyptians showed the example of wonderful beauty, the English potter cast and squeezed the clay into such wretched moulds, as were quite pitiful to look at. The fact was, that the potter worked like the metal workers, and the metal workers would be found doing the business of the potter. It was in art that the Egyptians, Hindoos, and others, excelled us. In France, and in Europe, beautiful specimens were produced by men who were artists, but if you went lower down, the sentiment of art would be found to gradually depart. We should so popularise art in England that the lowest workman should be imbued with it. Having pointed out these claims of the old art styles to the attention of his hearers, Mr. Owen Jones said he feared that the result might possibly be the diverting of public taste into the current of Indian imitation, and that a rush would now be made to imitate the Indian styles. This he could not sufficiently deprecate, but if an Indian mania should turn out to be in existence, he hoped that it might pass away as soon as possible; and after we had exhausted every style we might possibly become convinced of our folly. The real direction to take, however, was to make use of the principles visible in the Indian art, which were also those of the Egyptian, Greek, and Moorish, and not to imitate the style themselves. For in all of them the forms differed on account of the necessity to suit forms to the objects which it was intended to convey. From the Egyptians we might learn how to symbolise; from the Greeks learn purity of form; and from the Moors obtain geometrical combination. We had as many and as graceful flowers to imitate conventionally as any of these nations. Let England arouse herself from her lethargy, and much might soon be done with the assistance of the approaching Exhibition of 1853. Mr. Owen Jones here entered into a description of some of the plans which the promoters of the Sydenham Crystal Palace have in view, to further art in this country. He said that they intended having an art-museum which would contain cases of every object of note in the museums of the world, a gallery of portrait statues of all the most celebrated characters, and an architectural museum, thus affording material for consideration to the student in every style of art. When this scheme was fully

carried out, the result would be that the folly of imitation would become apparent, and artists would seek to form a style fitted for their own time. Having the power and opportunity of comparing every style, they will take from each what it has of good and reject the bad, and then shall we have progress instead of retrogression. We shall no longer have noblemen requiring Elizabethan villas, clergymen Greek temples, or professors Gothic halls; but we shall realize the desire of the age by borrowing of old styles only what is useful or ornamental, and we shall obtain an architecture deserving the appellation of "our own." All this, contended Mr. Owen Jones, would flow from the Exhibition of 1853. But the impulse, he added, must be followed out.

In the material improvement of man there was an advance to note, let there be also an increased refinement in art. From Government much was required—much more than it at present gave, or would give without pressure from without. Government, he thought, should help art with a more munificent hand, for with its present aid, progress would scarcely be made in half a century. It was necessary, therefore, to agitate, and in agitating success was certain, for there were no vested interests to contend against. There would be no enemies to oppose them save the tax-payer. A penny in the pound throughout London, they said, produced 50,000*l.* a year; what, then, would it give for the whole of England? Unity of art should be created by unity of education; by the formation of central schools, where every specimen of every art could be gathered together. A code of laws should then be formed by which professors would be governed and educated. These professors should get pupils who would remain and live in daily intercourse with them; and then be sent, when completely taught, to circulate art throughout the whole country. A movement like this would be a great fact, and energetic means would surely enable them to carry it out, and then make up for all the time that had been lost since art began in England.

Miscellaneous Notices.

ILLUSTRATED EDUCATIONAL WORKS.

The practice, newly introduced, of illustrating educational works, is of an obvious utility; one stroke of the pencil will often make patent to the mind what a page of laborious description might have been bestowed upon in vain. Amongst the recent works of this useful character which have come before us are an "Illustrated London Geography," by Joseph Guv, junior, of Magdalen Hall, Oxford, and an "Illustrated London Drawing Book," both adorned with some hundreds of engravings. In the literary department, the "Geography" is remarkable for the fulness and practical value of information it contains, which includes the most recent discoveries and territorial changes, and the admirable clearness of the style. The "Drawing Book" is indeed a wonderful experiment in cheap literature; and, looking at the style in which it has been carried out, the well-selected examples, and admirable explanatory matter, we think it will be successful in imparting at least first notions of the principles of a delightful art to many who would otherwise have continued to look and long in vain at the ever varying beauties of Nature's panorama. Yet, though a man may not aspire to produce artistic pictures of all he sees, a sketch, however rough, of some new and remarkable object presenting itself whilst on foreign travel, will sometimes prove of inestimable interest on his return; and to this end the instructions mentioned in the present little volume will be found serviceable.

THE SANITARY MOVEMENT AND ASSURANCE OFFICES.

The *Athenæum* suggests, that now that every prudent man insures his life, that the revenue of the societies is beginning to be counted by millions a-year, it may become worth the while of these bodies to assume some form of superintendence of the public health. The writer says, we know not if this idea has yet occurred to them; but they have begun to complain that the bad drains are destroying lives for which they have to pay. A case has just occurred, in which a good life and a thousand pounds were sacrificed to a defective sewer. The public health is here found to be an element in the success of a great commercial speculation, and where the higher motive has failed to operate, the lower one may be advantageously let in. Might not the various insurance offices appoint a committee of inspection, empowered

* Illustrated London Library Office, 227, Strand.

to look after the drains, heaps, and water-courses in the neighbourhood of their clients? Might it not be worth their while to contract with the parishes for due attention to everything which is necessary to the preservation of the public health in its highest state? They pay the medical man to detect disease for them, might they not pay the scavenger to sweep it away? A few shillings would have cleansed the drain whose foulness cost one of the societies a thousand pounds. The loss to all the offices in London arising directly or indirectly from imperfect sanitary arrangements must be very great—perhaps greater in amount than would be the sum required to put the whole metropolis in good sanitary condition. We throw out this hint for the consideration of the insurance companies; their interests are precisely identical with those of the public.

OUR IRON MANUFACTURES.

In 1851, the iron manufactured in Great Britain amounted to 2,500,000 tons; of which 750,000 tons were made in South Wales; 775,000 tons in Scotland; 600,000 tons in South Staffordshire and Worcestershire; and 100,000 tons in other districts; one-third of the produce being employed in castings, and two-thirds in malleable manufactures. In order to obtain this quantity, 7,000,000 tons of ore, 2,500,000 tons of limestone, and 13,000,000 tons of coal had to be extracted from the bowels of the earth; while in addition to steam-power, the labour of from 650,000 to 700,000 individuals, directly or indirectly employed, was required.

ANOTHER NEW PLANET.

Mr. Hind announces the discovery of another new planet. On the night of the 21st of June its position was on the borders of the constellations Aquila and Serpens, about 5° east of the star Tau in Ophiucus. The newly-found planet, to use the words of Mr. Hind, "shines as a fine star of between the eighth and ninth magnitudes, and has a very steady yellow light. At moments it appeared to have a disc, but the night was not sufficiently favourable for high magnifiers. At 13*h.* 13*m.* 16*s.* mean time its right ascension was 14*h.* 12*m.* 58*s.*, and its north polar distance 98° 16' 00". The diurnal motion in R. A. is about 1*m.* 2*s.* towards the west, and in N. P. D. two or three minutes towards the south."

CHALLENGE FROM AMERICAN SHIP-BUILDERS.

The American Navigation Club challenges the ship-builders of Great Britain to a ship race, with cargo on board, from a port in England to a port in China and back. One ship to be entered by each party, and to be named within a week of the start. The ships to be modelled, commanded, and offered entirely by citizens of the United States and Great Britain respectively. To be entitled to rank A 1, either at the American offices or at Lloyd's. The stakes to be 10,000*l.* a side, satisfactorily secured by both parties, to be paid with at regard to accidents or to any exceptions; the whole amount forfeited by either party not appearing. Judges to be mutually chosen. Reasonable time to be given after notice of acceptance to build the ships, if required, and also for discharging and loading cargo in China. The challenged party may name—the size of the ships, not under 800 nor over 1200 American registered tons; the weight and measurement which shall be carried each way; the allowance for short weight or over size. Reference may be made to Messrs. Baring, Brothers, and Co., for further particulars.

A DUBLIN EXHIBITION.

We have just heard that Mr. Dargan, the eminent Irish railway contractor, has placed in the hands of the committee, consisting of members of the council of the Royal Dublin Society, and some gentlemen selected by himself, the sum of 20,000*l.* for the purposes of an exhibition of the manufactures of the three kingdoms, to be held in Dublin in 1853.—*Herapath's Journal.*

To Correspondents, &c.

L. S. D.—A *crore* of rupees in Hindostance is a hundred *lacs*, and a *lac* is a hundred thousand. A rupee being considered as equivalent to 2*s.* British, a *crore* would be a million sterling and a *lac* 10,000*l.*

AMEN.—The Hospital for Consumption at Brompton is a most valuable Institution, and there are many patients discharged from it cured annually. The disease is generally to be arrested in its first and second stages, under the care of a medical man. We recommend you to apply for information to any of the physicians attached to the hospital.



FIGURE, ENGRAVED BY W. D. LINTON, AFTER A DESIGN BY J. M. W. TURNER.

This admirable figure well illustrates the charming incident of Imogene before the Cave of Belarius, in Shakspeare's play of "Cymbeline," Act III., Scene 6.

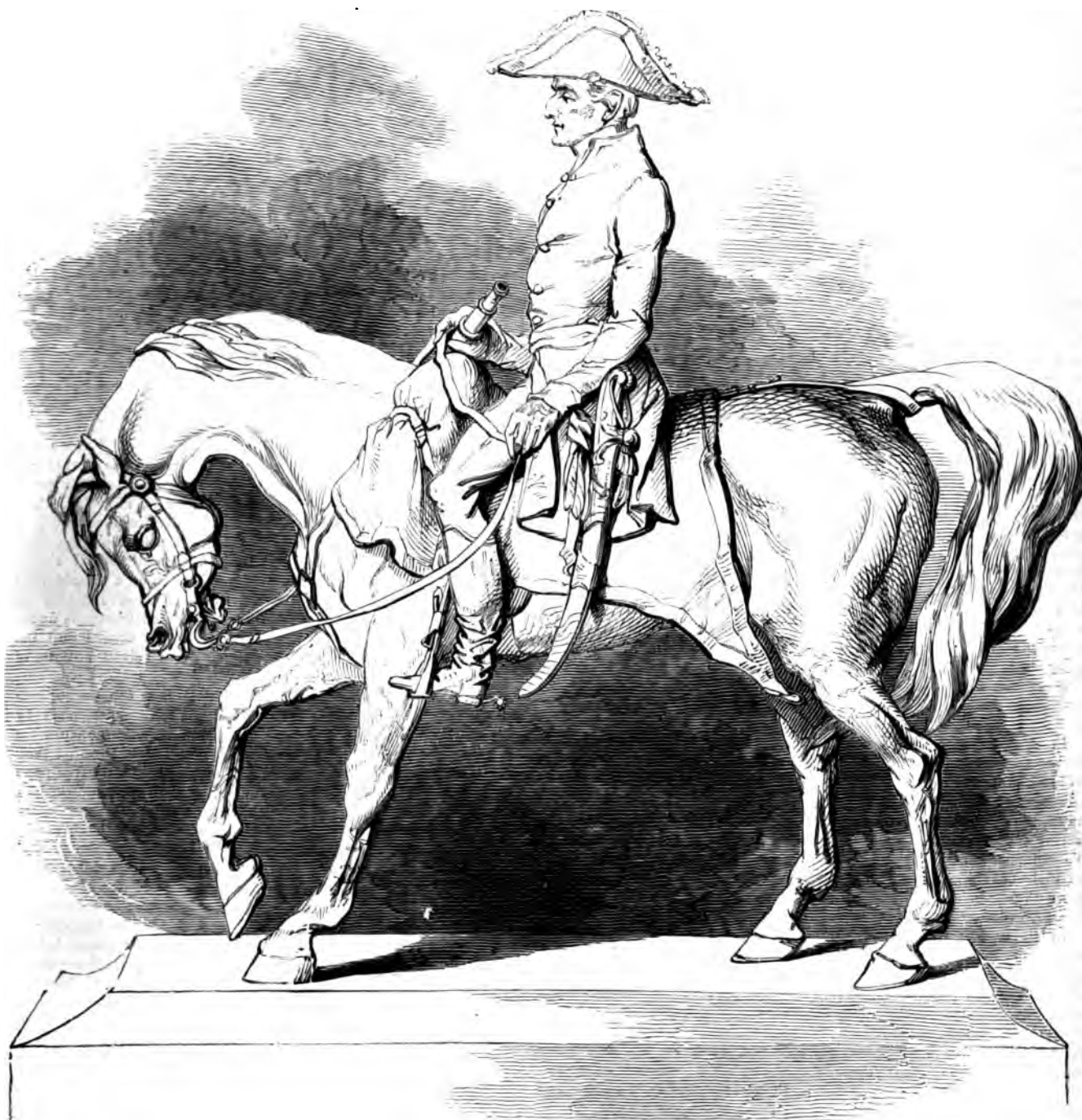
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PRICE TWOPENCE.



STATUETTE OF THE DUKE OF WELLINGTON.—BY COUNT D'ORSAY.

This statuette, although by a Frenchman and an amateur, is considered by some of the best judges, to be one of the most characteristic likenesses of the hero of a hundred fights, which has yet appeared; and this is saying a good deal, considering that statuesque embodiments

of the great Duke are so numerous, that go where we will we may exclaim "si monumentum quæris, circumspecte!"

The statuette is about to be reproduced for publication by a west-end house.

PUBLIC OPINION AND THE PRESS.

NO. III.—THE NEWSPAPER PRESS CONSIDERED AS A POLITICAL ENGINE
—QUESTION OF A UNIVERSAL FREE PRESS.

IN the two previous articles on this subject we have considered the power of the press as bearing upon the conduct of individuals, or upon matters of detail in executive departments. We come now to treat of this great organ in a much higher and more important light; namely: as it bears upon the political institutions of states, and upon the standing of the heads of states themselves. This will naturally involve some reflections upon a question upon which so much conflicting argument has been lavished, and upon which, as appears to us, much misconception still exists,—namely, the feasibility and the usefulness of an entirely and universally "Free Press."

That the heads of governments have long recognised the power of the press is proved by the precautions which they have at all times and in all countries taken, more or less, to restrict or control its operations, and by the jealousy with which, in the more despotic states, the right of publication is controlled by the censor. Despotic authority and public opinion, properly educated, can never be in absolute accord; and whether public opinion be manifested through the press, or at a popular assembly, the effect in its nature is still the same, and it is still equally obnoxious to the encroachments of despotism. France has, during the last twenty years, afforded frequent and remarkable illustrations of this great fact; in 1830, Charles X. lost his throne in a contest with public opinion, having thrown down the gauntlet in his famous "ordonnances" against the press; in 1848 Louis Philippe was defeated in an attack upon public opinion,—that is, in disputing the right of the open expression of opinion, not through the press, (that had been silenced long before,) but at a public dinner. And at the present day, what is the great and momentous struggle going on between the government of republican France and the people? The right of expression of public opinion by means of the electoral suffrage, by means of popular meetings, by means of the press. The right of expression through the suffrage has been restricted and narrowed by the new electoral law, no one knows at present within what limits, perhaps to a third of that constituency which elected the present President and the existing chambers; every attempt to utter opinions at public meetings is rigorously repressed by the police; and as for the poor editors and printers of journals, their ranks are thinned daily by the relentless attacks of the Minister of Police, and "public opinion" as embodied in their persons, pines for freedom, and dreams of vengeance within the walls of a prison. Public opinion in France has come off victorious in two great campaigns with authority within the last twenty years; a third struggle is still going forward, and he will be a wise man who can see to the end of it, or predict the results, which in after times will grow out of the issue of the conflict.*

Meantime a few general observations upon the press, and the machinery through which it acts, in affecting the destinies of nations, and the conduct of their rulers, may be permitted us.

In the first place, we think it will be admitted, that for all political or social purposes, the operative power of the press is restricted to the task of influencing opinion, either by the statement of facts, or the advocacy of doctrines. In so influencing opinion, it is necessary to any useful end, that the opinion influenced should be that of a party having discretionary power to act upon opinions when they are formed. To influence the opinions of men who have no power to act according to their convictions, and to enforce or induce the concurrence of those in power in their views, to say the least of it, would be labour thrown away.

In states where the controlling authority exists in the hands of those who are responsible directly or indirectly to the people, the press acts unerringly upon the public destinies, by awakening the attention of the public to the errors or omissions of their rulers, or of their own delegates, whose duty it is to watch and control the proceedings of government. Hence the anxiety with which the published reports of parliamentary debates are looked to every morning by ministers, members of parliament, and the public throughout the empire; it being well known, and acknowledged by all, that the government of the country, to all substantial intents, is not regulated within the walls of Parliament, nor within the secret conclave of the Cabinet, but by the general consent of public opinion.

But the case is very different in a despotic state, where force and

not reason (that is, reason derived from the suffrages of general opinion) prevails; where public opinion, however strongly expressed, has no constituted medium through which it may affect the will of the ruling power. In such a state as this, the denunciations of a "Free Press," whilst they can produce no direct effect, may occasion much harm to the popular cause, and delay the prospect of amendment. By awakening a people to wrongs which they have no regular means of redressing, a Free Press would only excite vain discontent, and provoke to acts of insubordination from which the people must be eventually the sufferers. The power of a Free Press, in a despotic state, would be like that of steam generated in a boiler without any machinery to work upon. It would create much hubbub and commotion, much struggling and straining, perhaps a complete rupture of the bonds of society; but no progress, no useful results.

A stronger proof of this principle could not be had than in the recent case of Hungary, where there can be no doubt, the excitement of public opinion, by the newspaper publications of Kossuth, led to the armed manifestations wherein the popular cause was worsted; public opinion, in this case, having no adequate controlling power to enforce its views against the will of an absolute government.

In England, where our free and glorious press is so justly our pride, let this great truth never be forgotten, that in all essential points we were free before our press was free; nay, more, that the germ of our constitutional liberties was obtained, the foundation of our future proud secular compact assured, before "the press" was even thought of, and that we had to fight for the freedom of our press long after we were free in every other respect.

The history of the struggles of our expounders of thought, and the persecutions, and the temptations which they endured, from the "golden age" of Elizabeth, down to the tailoring age of George the Fourth; the zeal and acrimony with which the lawyers of the crown have endeavoured, on all occasions, to gag the press, and restrain its functions, afford abundant evidence, that even in a constitutional state, whose institutions are as liberal and popular as can well be imagined to exist under a highly artificial system of society, the freedom of publication is considered by governments as a powerful and obnoxious privilege, one from which they have more to fear than to hope. And if it be so in a free state like "merry England," how much the more must it be so in a state whose government is despotic in every respect. In such a state a free newspaper press must be a moral impossibility; and even if possible would hardly be desirable. The press after all, can only reflect the opinions of individuals, severally or in the aggregate, and when the mass of the people are wholly ignorant of the first principles and the true uses of constitutional rights, their opinions must be visionary, vague, and often of a mischievous tendency. Abundant evidence of this was afforded recently in Germany, where the press, freed from its accustomed trammels under the revolutionary auspices, rioted in extravagances as absurd and impracticable, as they were often revolting to the received notions of civilisation.

Yet there are those,—and amiable and able men too,—who, contemplating with sorrow the persecution and suffering experienced by men and brothers in despotic states, and alarmed at the conspiracies which are every day brewing in secret by the discontented against their iron-handed rulers, are so enamoured of the principle of a free press in the abstract that they consider its universal application would be a panacea for all social disorders,—the soother of all social discontents. These gentlemen point to the secret societies which spread their ramifications throughout the length and breadth of Europe, with the avowed purpose of establishing certain fancies touching "constitutional rights;"—they tell of the conspiracies, the insurrections, and the bloodshed, which have resulted from the machinations of those men; and, deploring all this disorder and ruin, they calmly suggest that if the Emperor of Austria or the King of the two Sicilies could only be persuaded to allow of a free press for the discussion of public grievances, these secret proceedings would become unnecessary; and that Carbonari, "friends of the people," "friends of the rights of men," Communists, Socialists, and secret communities of whatever denomination, would immediately disband themselves, and give the Governments of their respective countries no further ground for anxiety.

All this sounds very plausible—but it is very fallacious. These gentlemen seem to consider that kings and their subjects are like man and wife, between whom little differences of opinion sometimes occur, without any substantial disruption of natural affection, or any failure of that community of interest, which should prevail in families; and they quietly recommend them to go home, talk over their little differences, and not to quarrel any more.

The struggle between authority and popular opinion in the despotic states of Europe, is for the first principles of constitutional liberty; such a struggle as that wherein the British barons triumphed at Runnymede,

* It may be proper to explain that these papers "on Public opinion and the Press" were written above a twelvemonth ago; and that the writer prefers publishing them in the state in which they left his pen, to remodelling them by the introduction of references to more recent events.—Ed.

and the Commons of England overruled the tyrannical policy of the Stuarts,—a struggle for life and death. The free discussion of such "differences" as these, would be tantamount to a continued war-cry against the most essential pretensions of the sovereign; and that it should be permitted is not to be expected. Men, therefore, must continue to complain and plot in secret only, when their agitation is directed against the very fundamental principles upon which the pretensions of their rulers are based.

The man of wide philanthropy starts at this position. "What!" he exclaims, "are whole nations to suffer and not complain? are the freemen of happier states to administer no consolation, no advice in the midst of their affliction? Are Russians, Austrians, Hungarians, Poles, Italians,—all the European families, in fact, to remain for ever in their present state of ignoble vassalage? Humanity revolts at the idea."

But because humanity revolts at it, is no reason why it should not be. There have been acts of men, and particularly of those decked in authority, from the beginning of the world, such as humanity revolts at. The groans of enslaved states echo through every page of history. And what has endured so long, may it not still endure? Is it not more than probable it will prevail, unless some new element, or conjunction of circumstances, interrupt the ordinary course of affairs, or infuse a new current of vitality into the body social?

And we fancy we see, though still struggling in the womb of time,—we fancy, say we, we foresee the introduction of such an element in the social condition of these states, not in the cheap philanthropy of philosophers and demagogues; not in the exciting proclamations of a crude public opinion, but in the increasing relations with surrounding states more free than themselves, which an extended and more liberal commercial system cannot fail to bring about. Commerce, which brings men together to consult of their common and individual interests, is the best civiliser;—commerce, which from its nature and the position of those who chiefly engage in it, is the means of enriching a class heretofore poor, powerless, and insignificant, become a reality, and a constituent authority in the State. It was this new element—commercial wealth, the offspring of industry—which in England has enabled the people, in successive struggles in the course of the last three centuries successfully, step by step, to resist the combined encroachments of a tyrannical monarchy, and a proud and powerful oligarchy; until, from being "villains," which the majority of their forefathers were, attached to the land, and subservient to the lord of the fee, they are now all free men, and control the conduct of their former masters. It was by no jugglery of abstract theories of right, that the people of England obtained these liberties; they earned them nobly,—commanded them indefeasibly when their industry had acquired that stake of wealth in the country, which made them substantially, as well as nominally, an "estate" in the realm.

A similar element resulting from a full development of the resources of industry and commerce, introduced amongst the poorer classes of the Austrian and Russian States, may produce similar results. Their admixture with the free and industrious nations of the west may afford them right and useful examples. But until this occurs,—until there is some third powerful class in those communities, beside a despotic sovereign and a servile and insolent aristocracy, any machinery for the production and dissemination of weapons of opinion amongst them, would be applied in vain.

AMERICAN MARINE.*

AMERICA derives much of her naval force, mercantile and military, from possessing the language and customs of England. American ships are, for the most part, manned by British sailors, and in addition to the "wriukles" they obtain from England, the Yankees have the advantage of a go-aheadiveness which seems not to be developed to so great an extent in the mind of John Bull. The subject, indeed, is one of great interest, and we are glad, therefore, that the publication, by an officer of our own navy, who has seen and noted all these things, enables us to make some facts known upon it. Mr. Mackinnon's sketches are racy and pleasant in all that relates to his personal experience in travel, society, hunting, fishing, and shooting; but he is the special authority in what relates to ships and dockyard establishments in a country which has recently been so much talked of in reference to competition amongst clippers and smaller vessels of the yacht description.

The system which regulates the United States' Navy is evidently not what has led to the prosperity of the shipping of that country. There, promotions being strictly by seniority, and the number of officers much restricted, the result is, that the lists get crowded, and the service, instead of recruiting itself speedily with new and young hearts, has gradually become concentrated in the hands of "old boys." The navy list of the United States shows that out of

sixty-eight captains, the senior has been fifty-two years in the service, and the junior thirty-nine. As regards commanders the result is similar; of these there are ninety-seven, the senior having thirty-nine, the junior thirty-two years' service. The senior midshipmen have upwards of fifteen years' service, and of course cannot look forward to very brilliant prospects. Midshipmen in America, however, frequently perform the duties of lieutenants, and in the Mexican war, a Midshipman performed the duties of executive officer of a sloop of war, the number of lieutenants being insufficient to answer the exigencies of a sickly climate. Still the prospects of naval officers in the United States are discouraging enough. By way of illustration, let us take the case of midshipmen.

The number of passed midshipmen is 233, and the average of promotions to the rank of lieutenants has been during the last nine years twelve and a half per annum. Taking those who stand in the middle of the lists who entered in 1841 for instance, we find that they cannot pass lieutenants for nine years, that is till 1861; whilst those at the bottom of the list will not get promotion under nineteen years. Most of the latter having served about ten years, and their age being about twenty-six, they must consequently be (senior) thirty-five, and (junior) forty-five before they are lieutenants. The average number of promotions during the last nine years to the rank of commanders has been only five a year. As there are ninety-eight on this list, the juniors who must already be from forty-five to fifty-three years of age have no chance of further promotion. If we take the liberal allowance of fifty per cent. for casualties to lieutenants, the passed midshipman may at the age of eighty-one have command of a corvette. The result of this is that already the American military navy is a closed profession. The youngest lieutenants are older men than most of the captains in the war of 1812, and unless a new system of retirement is recognised, the Americans must have "grey-headed" midshipmen gentlemen anxiously waiting for promotion at an age when the naval officers of other countries are retiring.

But though such is the state of promotion in the American navy, the ships which these officers command and man are built with all the improvements which can be derived not only from the genius of the people themselves, but from the examples of other nations. "We are informed upon unquestionable authority," says Captain Mackinnon, "that no new implement of war is elaborated in England without being immediately known to the authorities in the United States, and we are told that the commission of naval officers sitting now at Washington to recognise the naval ordnance and gunnery exercise are assisted materially by the experience of men educated in her Majesty's ship 'Excellent.' 'It all leaks out, I guess,' were the words of the most intelligent officers in the American navy, and there cannot be a doubt of it."

The Yankees feel the impossibility of keeping secrets such as must interest nations in the highest degree, as we in England fancy that we can do; consequently the entrance into their dock-yards and ordnance laboratories is not fenced round with prohibitions as with us. They let a stranger in at once, and show, if he wants proof, "that they have accurate descriptions, and what is more, models of everything of consequence in our dock-yards and arsenals;" and knowing this, they have no doubt that the English government can do the same. Nay, they go so far in imitation of us that they have copies of the gunnery books of question and answer in use on board her Majesty's ship "Excellent."

These are some of the advantages which the Americans have over us; but besides this, there is, as we have said, that remarkable perseverance and energy which make the Yankee the most remarkable man of these times. There is no yard in the old world where you can see three ships launched the same day. Yet Captain Mackinnon saw this done in Webb's yard, at Brooklyn, opposite New York. First a Havre liner of 1708 tons, built for running. Second, a steamer, the Illinois, of 2500 tons. Third, a yacht, the Gazelle, of 1500 tons;—in all, 5708 tons launched from one builder in thirty-five minutes. It may be said that perhaps this took place at the time of the clipper fever as it is called,—but it is not so. The clipper fever in the United States is over now. The owners have found out that the returns will not pay for wear and tear; and it is probable that few of this class of ships will be built unless some great improvement in shape and speed be discovered as a consequence of the great success of the "America" yacht. Mr. Steers, the builder of this victorious vessel, is trying this problem, and has laid down a clipper of 2000 tons, the estimated size of which will be—length, 233 feet; breadth—48 feet; draught—20 feet. He expects that this new clipper will achieve a speed of 18 miles an hour; and if so, there is still a chance of such vessels paying. But there is no doubt that clipper-ships, although the finest afloat, are very uneasy in a sea. They likewise strain violently, and from this cause make water and damage their cargo. If a class of ships of this description is now built, which, ensuring speed, will at the same time, also, be easy of motion, then the clipper problem will have been solved. The "America" did this as regards yachts; let us hope Mr. Steers will succeed as regards clippers. "I spent some days at Baltimore," says Captain Mackinnon, "carefully examining the different varieties of clippers. On one occasion, I observed a group of these fine models surrounding an English coaster. The contrast was most marked. The hideous English coaster surrounded thus, was like a young donkey grazing amidst a herd of gazelles." The true Baltimore clipper—the ideal of perfection thirty years ago—is now quite out of date, however. All the ship-builders at that port have been gradually changing their forms, but still retaining their graceful appearance. It is indeed, a remarkable fact, that at Baltimore, all vessels, even those

* Atlantic and Transatlantic Sketches Afloat and Ashore, by Captain Mackinnon, R.N. COLBURN & Co., London.

destined for the most degraded offices, such as carrying manure, oysters, and wood, are of elegant and symmetrical proportions. In this, they resemble those beautifully-cut carriers which supply Billingsgate in London with fish from the banks of the North Sea. A merchant-vessel on the clipper principle can be turned out by a Baltimore builder for from 10*l*. to 12*l*. a ton, complete in all her fittings. This is much cheaper than in England, which is unaccountable as the wages of artificers as well as most articles of ship fittings are much more expensive in America, wood being the only exception. In this, as in other things, Captain Mac-kinnon believes that English ship-builders have much to learn from Brother Jonathan. They may take a leaf out of his book, not only for the fashion of the build, but in fitting and rigging. The modern-built American vessels are infinitely better fitted and ventilated than any British ships. An American London liner is sailed with half the number of men required by an English ship of the same size; and yet the work is got through as well and as expeditiously, because of the various mechanical contrivances to save labour. "Gipsies," or small windlasses, enable three men to lift a huge chain cable of the largest size. The system of lower rigging is also a great improvement. When an American ship is first rigged, the lower rigging is much larger and stronger than is usual in England. It is expected to last without lifting as long as the ship preserves a first-class letter on the commercial list. Cotton-

duck sails are almost invariably used by American vessels under tons; and this is not only very advantageous when used in light wind but is two-thirds cheaper than canvas used for yachts.

It must be said of the Americans that they are wonderfully *save* in their harbours for the erection and launching of shipping. Brooklyn, Philadelphia, Washington, Baltimore, and Boston, the *sheds* are enormous and have been increased by art. At Brooklyn, a huge dry yard has been built, the foundation of which being in a quicksand, rendered immensely difficult. The dimensions of it are: length, 1,200 feet; breadth, 103 feet. A huge engine draws off the water from vast basin in three hours. At Boston, there is a dry dock which equals that of Brooklyn; being 84 feet broad, and 285 long. The most of the rope used in the United States navy is made in a rope 1,200 feet long, and fitted with admirable machinery. In the navy, of Charlestown, of such ample depth is the water, that *line-of* ships can lie at its wharf at low tide without touching the bottom, sail directly from the wharf, with all hands on board and complete armed and provisioned for any voyage. Such is the *magnificent* some of the naval establishments in the United States, which does not, however, cause an absorption of public feeling in *admiration* of them, but which forms only part of the pride of a *great* growing country.

THE NEW PALACE OF WESTMINSTER.

WE have already described most of the approaches to the chambers of the two Houses of Parliament in the new Palace of Westminster, and we now arrive at the Commons' "Lobby," a name associated with many historical recollections of great interest, with which many a strange



PANEL OF THE GALLERY OF THE NEW HOUSE OF COMMONS.

and many a touching anecdote is connected. It is a name familiar to the minds of all who have any acquaintance with the history and proceedings of the British Parliament. This new lobby is very lofty, and nearly equals in grandeur of effect and richness of detail the central octagon itself. The magnificent ceiling of carved wood is in nine divisions; and the entire surface of the walls is enriched with all the resources of architectural ornamentation wherever there is open space outside affording light and air. Upon the rest of the walls, (except in the compartments for pictures,) the panelling is sumptuously worked over and en-

blazoned with heraldry. The four sides present, as chief features, standing out from the rest, four stately arches; and below the windows are pierced screens of great beauty and interesting effect. At one side of the arch, in the north wall of the lobby, opposite to that by which you enter from the Commons' Corridor, is a small door, leading to one of the galleries. But in the left, or west wall, next the arch on that side, is an entrance to the Strangers' Gallery. In the north arch itself is the door of the House, or the public entrance, leading directly to the "Bar."

We shall not dwell here upon the associations which are revived upon entering this House; we will only say that the impression received from the first view of it does not altogether realise the expectation suggested by the richness, grandeur, and noble proportions of the approaches through which it is reached. This is mainly owing to the alteration of the roof, which has been considerably lowered, and to the peculiar objections of many members to having the Commons' House lavishly decorated. Indeed, some members have objected to *their* House being decorated at all. The lowering of the roof and the alteration of its form from the original construction was rendered necessary by the difficulty of hearing which was experienced upon the Chambers being first used for debates.

The roof, in its altered form, is composed of five planes, which with the side walls, make seven sides of a polygon, being an approximation to the construction (that of the octagon), which proved by experience to be the best adapted for hearing speakers from every part of a chamber. The north and south walls are too much broken on the surfaces to have much effect in reflecting sound. The House itself is oblong; and the dimensions, (since the alterations,) are as follows:—length, 60 feet; breadth, 45 feet; and height, 44 feet to the centre of the roof. On each side, there is a gallery for members, running the length of the House.

At the north end, opposite to that which is the public entrance, we observe the Reporters' Gallery, over the Speaker's chair. Above the gallery of the Reporters, there is another for the accommodation of ladies, which is enclosed behind a very handsome, pierced screen. At the south end, over the entrance doors from the Lobby, is the Strangers' Gallery. Of this, a portion in front, is divided off into stalls, for the accommodation of peers and persons admitted by the Speaker's order. On either side of the public entrance, at the south end, are the places for the officers of the House. The seat of the Sergeant-at-Arms is a chair, somewhat elevated, and with a stately, high back; whereas that of the deputy Sergeant, is of a much more modest appearance and

dimensions. The stuffed seats and backs, as well as the seats of *mini* and the Speaker's chair, are covered with green moreocco leather.



STATUE OF FALKLAND, BY FOLEY, IN ST. STEPHEN'S HALL.



THE HOUSE OF COMMONS.

so do certainly serve but little to relieve the dull and plain appearance of the House. Between the seats of the Sergeant and his deputy, is the Bar; at which lawyers stand to address the House, witnesses to be examined, and all persons present themselves who, not being members, are required to attend before the House. On each side the walls, above the members' galleries, are pierced with twelve windows in pairs. These are filled with stained glass, except two on each wall, which we believe it is intended to fill with similar decorations. The subjects are all heraldic, and consist entirely of armorial bearings.

The "balcony" fronts of the galleries are divided into compartments, by the bases of what may be termed, most fitly, Elizabethan balusters; and these again into squares, filled with quatrefoils, which contain the arms and devices of the several divisions of the United Kingdom:—the lion, the rose, the harp of Ireland, the cross of St. Andrew, the Prince of Wales's triple plume, &c. These being painted in colours have a very pleasing effect; and, together with the stained windows, take off something from the generally sombre character of the apartment. But nothing can redeem the bad effect of the lowered ceiling, and the extremely clumsy appearance of its five-parted arrangement. In front of the Speaker's Chair is the Clerk's table, upon which, according to the well-known phrase, "petitions are laid." From the floor on either side, the seats of members rise above one another to the side walls. Those on the right of the Speaker, and east side of the House are held by the ministers for the time, and their supporters, the principal ministers occupying the front row, at the end nearest to the Speaker. Opposite are the seats of the opposition, on the Speaker's left, and west side. Behind the Speaker's chair are doors to his retiring room, and to the corridors and staircase from the members' private entrance, on the west side of Westminster Hall, opposite the Court of Exchequer.

YAMA AND THE DISCIPLE.

FROM THE SANSKRIT. BY DR. BOWRING.

Part the First.

To the young inquirer, Yama
Many a precious gift had given,
And he urged him: "Show me Brahma!
Let me know the Lord of Heaven;
Much thy wisdom hath imparted,
Let me tread not as I trod,
Empty-minded, vacant-hearted—
Show me Brahma!—teach me God!"

"Ask me sons and grandsons—cattle,
Elephants, or horses—gold—
Life prolong'd—success in battle—
Every bliss by time unroll'd;—
Ask me empire wide extended,
Earth's most beautiful domains;
Nymphs in whom the graces bled
Shall surpass what fancy feigns!"

"Of all wonders, ask the rarest;
Of all songs, the sweetest choose!
Of all gems, select the fairest—
Yama nothing shall refuse.
Ask him not with vain persistence
That to see which none can see!
Mysteries of God's existence,
Unapproach'd Infinity!"

"What is empire? what is pleasure?—
What is wealth!—all vanities!
Time soon speeds his little measure—
Weary man, exhausted, dies.
Death conveys all mortals nearer
To the Godhead whom I seek;
O reveal Him!—show Him clearer!
Thou who knowest Brahma, speak!"

"Solve my doubts; my vision brighten!
Other wishes have I none!
With God's light my soul enlighten—
Let me know The Unknown One!"
Still he urged his prayers on Yama,
Pleading, pleading there he stood:
"O! unveil the hidden Brahma!
Show me His Beatitude!"

Part the Second.

"Duty, pleasure, virtue, beauty,
Captivate the heart of man;
Blessings, the reward of duty;
Degradation, pleasure's ban.

Virtue, with its contemplations,
Leading upwards—upwards more;
Beauty, with its fascinations,
Dragging downwards,—lower,—lower!
"Thou, in thy serene reflection,
Seekest the sublimer joys;
Answerest pleasure by rejection,
Honourest duty by thy choice!
Ignorance in vain invites thee,
All its idle dreams are past;
And the knowledge which delights thee
Thy reward shall be at last.

"Ever searching, ever gleaming,
Many a truth thy soul shall hold;
Many a deep mysterious meaning
Shall be gradually unroll'd.
Not by disputations wrangles
Wilt thou fathom the conceal'd;
Calm communion disentangles
What the Godhead hath reveal'd.

"Many are his revelations,
Many a gently-wafted word,
Wandering 'midst the world's temptations,
All unnoticed—all unheard!
He who reverently listens,
He who meditating wakes,
He shall see Heaven's light that glistens,
He shall hear Heaven's voice that speaks.

"There's a Godhead in attendance,
Unobserved by ear or eye;
There is a Divine Resplendence,
In the darkness of the sky:
Highest of all heights o'er shading
In unmoved complacency;
Deepest of all depths pervading
In serene felicity.

"Sitting still, through space He travels
Calmly resting, fills all time;
And to the pure heart unravels
E'en His attributes sublime.
Who desires Him shall obtain Him;
He who loves Him wins His love,
Till God's truth shall teach and train him
For the highest seats above."

FRASER'S MAGAZINE.

MARIE DE MEDICIS.

HER REGENCY AND DEATH.*

WE resume our notice of Miss Pardoe's highly interesting historic narrative from p. 141. The particulars of the assassination of Henry IV. by Ravaillac are too well known to the historical reader to call for repetition here. Our business is with Marie de Medicis, who was now not only crowned Queen, but Regent of the kingdom. She incurred, it must be observed, some suspicion of complicity in her husband's death, by not pressing for the full investigation of the assassin's motives; and the Duke d'Epemon and the Marquise de Verneuil fell also under similar suspicion, though clearly the latter had nothing to gain by the King's death. The regicide himself exhibited on his trial the most stoical indifference. Quarrels of all kinds began to take place among the nobility. The Count de Soissons was displeased, the Duke de Bouillon insulted Sully, and the Duke d'Epemon assumed an objectionable amount of influence with the Regent. The Queen, however, soon began to exhibit energy; showing, indeed, that her ambition grew with her responsibility. Bewildered with conflicting claims, she had also to support a struggle with her son Louis XIII., who, from his earliest boyhood, was at once saturnine and obstinate; and, in particular, objected to be flogged as a boy, while bearing the name of a king. The public suspicions, too, of her complicity in her husband's death gained daily force. Rambure himself believed in her guilt. By haughtily refusing to bend to any compromise, Marie recklessly augmented the amount of dislike that existed. "Only five months after Henry's assassination," says Rambure, "such of the nobles as were devoted to his memory expressed among themselves their indignation at the bearing of the Queen; who, although compelled at intervals to assume some semblance of grief, was more frequently to be seen with a smiling countenance, and constantly followed the hunt on horseback, attended by a suite of four or five hundred princes and nobles."

The unpopularity of the Queen was productive, however, of some public advantage,—in the remission of many taxes, the encouragement of protestantism, and the confirmation of the Edict of Nantes. The enormous sums disbursed by the Queen, and usually cited as proof of her extravagance, are, in the work before us, proved to have been literally the price paid by the nation to purchase the loyalty of its princes and nobles;—a frightful state of things, adds Miss Pardoe, "which exhibits more forcibly than any argument, the utter powerlessness of Marie to restrain the excessive expenditure by which the kingdom was so soon reduced to the brink of bankruptcy."

On the part of the Duke d'Epemon there was every desire to revolt against the Regent; and, in fact, he sought to induce the Prince de Condé to do so, but failed in the attempt. His bitterness was increased by the refusal of the Queen to confer on him the command of the campaign in Clèves. To make matters still worse, Sully withdrew his counsel from the sovereign power, and the Marquise d'Ancre became pre-eminent at court, on whose power over the Queen, not only the ministers, but even the princes of the blood, looked with distrust; while between him and the Duke d'Epemon, a feeling of hatred secretly rankled, veiled as yet by the policy for which each was so distinguished. The Princes of Guise and Lorraine also evinced symptoms of discord, which threatened the most serious consequences. The year, indeed, which had commenced with the assassination of the King, closed in heart-burning and uncertainty. An arrogant and unruly aristocracy, a divided and jealous ministry, and a harassed and discontented population, were its bitter fruits.

At length the Duke d'Epemon absented himself from the court, which was left to the management of the Concini, who began to think no aggrandisement beyond his ambition. High play still formed a prominent feature in the amusements of the palace. While the crausle and the gaming-table occupied the night, the day was devoted to hunting, a diversion in which the Queen constantly participated.

She could not, however, escape her sorrows, either as a woman or a queen. Her second son, the Duke d'Orleans, became dangerously ill, and in two days was a corpse in his mother's arms. Devotedly attached to her children, the Queen was inconsolable; her greatness embittered by private suffering, her authority endangered by intestine broils, she knew not upon whom to depend, or upon what to lean. New cabals rose on every side, in pursuance of one of which, the princes of the blood retired from the court, much to the annoyance of the Queen, by whom, with considerable trouble, they were subsequently recalled. But they again withdrew, and seriously manifested their disaffection, on the Regent publicly announcing the approaching marriage of the King. Their party was ultimately espoused by Concini, and their disaffection greatly augmented. But at last he proved treacherous to their interests.

Meanwhile, the young Duke de Mayenne had taken leave of the court, and departed with a brilliant suite for Madrid to demand the hand of the Infanta for the King of France. And on the same day, the Duke de Pastrano left the Spanish capital, on his way to Paris, to solicit that of Madame Elizabeth for the Prince of Spain. Such was the splendour of the marriage preliminaries and accessories, that the year 1612.

* "The Life of Marie de Medicis, Queen of France, Consort of Henry IV., and Regent of the Kingdom under Louis XIII." By Miss Pardoe. COLBMAN.

in which it was celebrated, was long known in Europe as the year of magnificence, the festivals having been alike gorgeous throughout France, Spain, and Naples, the display, however, at Lerma, and Madrid, exceeding that in Paris. The contract between Louis XIII. and the Infanta was completed on the 22nd of August in the Spanish capital.

The state of France at the commencement of the year 1618 was extremely precarious. Its opening was marked by the revenge taken by the Guises upon M. de Lué, for boasting of his complicity in the assassination of the Duke de Guise at Blois. At its close, the Regent gained a triumph for herself and the Concini, by naming the Marquise d'Ancre a marshal of France. But the year following was productive of new anxieties. Reforms were demanded in the government; and Bouillon's restless ambition incited the feelings of the Princes and disaffected nobles against the court. These and other intrigues repeatedly unsettled the minds of the people, and harassed the Regent, who nevertheless showed extraordinary energy and tact in defeating the manoeuvres of her enemies.

The minority of the King ending with his twelfth year, on the 2nd of October, 1614, the ceremony of Louis XIII's recognition as actual monarch of France, took place, and Marie de Medicis, in the presence of Parliament, resigned the administration of public affairs into the hands of her son. Owing to the defects of his education, Louis had by no means at this time attained to the degree of knowledge common to his age; but he was of an active disposition, and in gunnery, horsemanship, or falconry, was efficient. He was also pious and well-purposed, but incompetent for kingly duties. His favourite companion was an adventurer named De Luynes, who, under colour of being his playmate, nourished the most ambitious designs. On the arrest of the Prince de Condé, however, Luynes was not able to assure his friend even by a look of confidence, and the Queen-mother had to bear the pressure of that terrible responsibility alone. She sustained it with inexhaustible spirit, and addressed the hostile assembly with an Italian fervour of eloquence which awed the boldest. It was about this time that the famous Richelieu was made Secretary of State; and by him the reasons for the arrest of the Prince were skillfully stated to the Courts of England, Holland, and Germany. De Luynes, however, still secretly influenced the mind of the young King, and instilled into it jealousy of the Queen-mother's power, and of the interference of the Concini; advising, indeed, and carrying out the assassination of the latter. In this design he even received the co-operation of Richelieu. The complicity of the King in the transaction, especially when we consider his youth, was not its least repulsive feature. Scarcely had the horrid order been completed, when the young King himself appeared upon the scene, and thanked the assassin personally for the act; then, showing himself sword in hand successively at each window of the guard-room, (for the crime was committed in the Louvre), he cried out to the soldiers who were posted beneath, "To arms! comrades, to arms!" The body-guard of the Queen-mother were straightway ordered to be withdrawn, while the royal guards took possession of all the avenues of the palace, and horsemen were sent into the streets, to apprise the citizens of the fact. Within an hour the Queen-mother was a prisoner within her own apartment, and other precautions taken. All was so far successful, and instead of execrations, the King was met on all hands with the congratulations of nobles and prelates, among whom one of the foremost was Richelieu himself, who, however, experienced but an ungracious reception.

Marie de Medicis, when informed of this terrible event, exclaimed, "I have reigned seven years; I must now think only of a crown in heaven." She grieved more, however, for her son's distrust of herself, than for the murder of her favourite. In vain she sought an interview with the royal stripling, who had just then and so guiltily released himself from her control. In the midst of her despair, the widow of the murdered man, rushed into her chamber, to be driven hence with reproaches. Not long after, the assassin of her husband, Vitry, still reeking with the blood of his victim, entered the apartment of the marquise with a troop of halberdiers; by whom she was made prisoner, and conveyed to the Bastille. In less than an hour the life-long companion of Marie de Medicis, husbandless, childless, and friendless, was an occupant of the gloomy fortress-chamber which had recently been vacated by the Prince de Condé, who had retired early to rest. He was awakened by the noise created by her entrance, and when told of the cause, only rejoiced in her misfortune.

The populace of Paris participated in the guilt of the monarch. Tearing the body of the victim from the grave in which it had been deposited, they fastened a rope round the neck of the corpse, and dragged the latter through the streets. The desecrated remains were then hung by the feet to a gibbet, brutally dismembered, and finally burned. Such was the fall of a powerful court favourite; while before sunset, the Baron de Vitry received the wages of assassination in the gift of a *baton*; his brother becoming his successor as captain of the royal guard; and his brother-in-law, who had also assisted in the infamous act, lieutenant of the Bastille. The last was intrusted with the safe keeping of the Prince de Condé.

Marie de Medicis, after this, suffered insult upon insult, being charged, indeed, with a design to poison the King. At length, heart sick and disgusted, she resolved to retire to Moulins, to which accordingly she requested the consent of the King, who was only too glad to grant what he particularly desired. Strangely enough, Richelieu resolved to share the exile of the Queen-mother, and readily obtained

leave to do so. The bitter parting with her son is graphically described in Miss Pardoe's narrative.

"The tale we follow to its last recess
Of suffering and of peace."

Marie de Medicis sought to resign herself to her destiny, but this she found difficult, and the more so since the pledge was violated that she was at perfect liberty to select her place of residence. Such freedom did not suit the purpose of De Luynes, who had determined on her remaining at Blois. She soon found also, that the intriguing prelate who had chosen to share her retreat was but a spy upon her conduct. To effect her escape, a formidable conspiracy was formed between the Cardinal de Guise, M. de Bouillon, and the Duke d'Éperon, by the last named of whom the Queen-mother was conducted to Angoulême. The King, alarmed at their removal, aimed at a compromise, in which Richelieu volunteered to be the mediator, and was accepted. His intrigues were sufficiently successful to cause the desertion of several of the friends of Marie de Medicis. A treaty of peace was concluded between her and the King; nevertheless she long persisted in her refusal to quit Angoulême, where she was visited in great state by the princes of Piedmont. Subsequently, she visited Chinon, Angers, and Anjou, but still refused to return either to the court or the capital. The magnificence of royalty still attended her movements—but the splendour was deceptive. The Prince de Condé, in her despite, had been released from the Bastille, and in return for the royal grace, sternly advised the King to compel her obedience.

The King had ultimately to take up arms against the Queen, his mother. This unnatural conflict signalised the year 1620. Marie, to secure her personal safety, had to garrison the town and citadel of Angers, and might have more effectually defended her cause, but for the treacherous interference of Richelieu. Betrayed on all hands, and having in vain tried to escape, Marie was reduced to the necessity of compliance. Subsequently the King granted her a share in his government; and after this, the ambitious mother had her moments of triumph, until Richelieu became all powerful, and treated with ruinous ingratitude her by whom he had risen to the pitch of greatness.

Of the character of Cardinal Richelieu, Miss Pardoe has suffered herself to take a very one-sided view. Marie had reason for withdrawing her confidence from the voluparic Cardinal; but it must be recollected that her interests and those of France were not always the same: to the latter Richelieu has the credit of always having maintained his fidelity. Marie sought his overthrow, but the genius of the man perpetually triumphed, and ultimately he became a persecutor of the ever-falling and at last fallen Queen. Resolving to effect her exile, Richelieu at length was driven to advise her being made prisoner at Compiègne; but she was enabled secretly to leave the fortress, and escaped to Brussels. Here, with the Duke d'Orléans, she sold her jewels in order to raise troops for the invasion of France. All was in vain. Now seeking an asylum in England, now soliciting a return to France, anon resolving to conciliate the cardinal, at length, she was compelled to find refuge at Antwerp, and beg the protection of the Pope. Long previous to this, Marie had sought to cover her sorrows and her sins beneath the mantle of superstition; but her apparent piety ever and anon yielded to renewed ambition. Still in her ashes lived the former fires. "A fugitive and an exile, still she was every inch a queen."

At Antwerp, Marie took up her abode in the house of Rubens, the painter-prince, intending to live there in entire seclusion. The pure zeal of the artist in her service convinced her of his fidelity. In 1622, she had invited him to Paris, and lavished upon him riches and honour, in order that he might perpetuate with his brilliant pencil the short-lived triumphs of her Regency. And now, in 1641, her protégé again knelt before her, pressing her thin hand reverently to his lips. A few weeks passed, and Rubens proposed to visit Paris on a message of peace with a letter from the royal wanderer to her son. The letter was written; it was placed in the hands of the Maestro, and he was about to enter the carriage which was to bear him away on his charitable errand, when a courier in the livery of the Low Countries galloped into the yard, and demanded to be ushered into the presence of the Queen. The spies of Richelieu had, in fact, tracked Marie to her place of refuge, and the authorities had been called on to command her instant departure from Flanders. In this emergency Rubens placed at the disposal of fallen majesty another house of his own at Cologne until his return from Paris. This was her final resting-place. Rubens, for his pains, fell into a snare laid for him by the Cardinal; while his royal client, cruelly deprived of her pensions, suffered the severest privation, being compelled to break up her furniture for fuel to cook her scanty meal. Feeling, under these circumstances, her end to be approaching, Marie made her last will, dated 2nd July, 1642, and on the next day, her sufferings ended in death. Thus perished, in a squalid chamber, on a wretched bed, virtually childless, homeless, "the haughty daughter of the Medici—the brilliant Regent of France,—the patroness of art,—the dispenser of honours,—and the mother of a long line of princes."

Such was the state of society and morals in France two centuries ago. To redeem her from its effects she has had to suffer many and severe revolutions, and has yet to "work out her salvation with fear and trembling."

HANS HOLBEIN.—HIS LIFE AND WORKS.

"HANS HOLBEIN had none of the volatile essence of genius in his composition. If portrait-painting is the prose of the art, his pictures are the prose of portrait-painting. Yet he is a 'reverend name' in art, and one of the benefactors of the human mind. He has left faces behind him that we would give the world to have seen; and there they are—stamped on the canvass for ever! Who, in reading over the names of certain individuals, does not feel a yearning in his breast to know their features and their lineaments? We look through a small frame, and lo! at the distance of three centuries, we have before us the figures of Anne Boleyn, of virtuous Cranmer, the bigoted Queen Mary, the noble Surrey—as if we had seen them in their life-time; not, perhaps, in their best moods or happiest attitudes, but as they sometimes appeared, no doubt. We know, at least, what sort of looking people they were; our minds are made easy on that score; the 'body and limbs' are there, and we may 'add what flourishes' of grace or ornament we please. *Holbein's heads are to the finest portraits what state-papers are to History.*"—HAZLITT.

AUTHORS are by no means agreed as to the date of Holbein's birth; by some it is stated to have occurred in 1498; by others it is supposed

to have taken place three years earlier. The question is, perhaps, of little importance, however. It seems tolerably certain that he was born in Basil, or as it is modernly called, Basle, in Switzerland, and that he received his first instruction in the art of painting from his father, John Holbein, who was a painter, and had removed from the German imperial city of Augsburg. From the first his character was marked by vigorous industry, which impelled him to study, in addition to painting, engraving, casting, modelling, and architecture. These self-imposed labours were so many steps straight forward on the road to fame; but though he speedily reached the goal, one cannot follow his career without regret that his strong sensual organisation should so often have carried him far astray. That he early contracted habits of dissipation and irregularity is too clearly proved by the severe though jesting reproof which he received from the illustrious Erasmus, who, as he had been among the first to perceive the young painter's talent, was amongst the first who had become his friends. Chalmers thus relates the anecdote: "When Erasmus wrote his 'Moris Encomium,' or Panegyric upon Folly, he sent a copy of it to Hans Holbein, who was so pleased with the several descriptions of folly there given, that he designed them all in the margin; and where he had not room to draw the whole figures, pasted a piece of paper to the leaves. He then returned the book to Erasmus, who, seeing that he had represented an amorous fool by the figure of a Dutch lover, hugging his bottle and his lass, wrote under it, 'Hans Holbein,' and so sent it back to the painter." Holbein was much nettled, and retorted by drawing the picture of Erasmus as a musty book-worm, who busied himself in scraping together old MSS. and antiquities, and wrote under it "Adagia," in allusion to Erasmus's book bearing that title; and it is to be feared that nothing more came of the matter. Another anecdote is told of him, referring, probably, to a period precedent to the above, which, if we may give any credence to it, at once illustrates his early bias towards the pleasures of drinking, and the pains he would be at to accomplish the indulgence of his inclinations; it is a testimony, too, upon another point, that Holbein was fain to take employment in the lower branches of his art, such as house-painting and the like. Being engaged, it is said, upon the decoration of the shop of an apothecary, who watched him narrowly to see that he did not neglect his work, but wishing rather to get away to a neighbouring wine-shop, he, to achieve his end, and at the same time to avoid detection, hit upon the wild scheme of painting a representation of his own legs upon the

under side of the scaffolding, and was so perfectly successful in the execution of the trick, that the watchful apothecary, who sat below, never suspected but that he was working with the utmost diligence!

Holbein married early; but his domestic obligations had no power to check him in the indulgence of his roystering propensities, and he lived unhappily with his wife. The portrait of himself, as engraved by Bartolozzi, though doubtless painted when he was considerably older than he was at the time to which we are referring, will yet enable us to make a shrewd guess at the probable appearance of the younger man; this portrait conveys to us no very pleasant impression; he is represented as gross of habit, sensual, and wilful in an excessive degree. Of his partner we have no account, but if he has given us a true likeness of her, as no doubt he has, we can readily imagine the cat and dog sort of life they are said to have led together. There were, most likely, faults, perhaps great ones, on both sides: certainly (we should argue from their portraits) little of conciliation on either.

Of Holbein's engagements in his native city not much has been ascertained. He painted a picture of Our Saviour's Passion in the

town-house, the sketches for which afterwards passed into the possession of Rubens, and in another building—the fish market, as some assert—a Dance of Peasants, both of which were considered admirable. It was to the merit of these works he owed his introduction to Erasmus, who was much impressed by their excellence, and requested to have a portrait of himself by the same hand. The portrait painted in consequence by Holbein was a noble one, and Erasmus became the painter's dearest friend and adviser. But whatever was the extent of his labours, it is undoubted that with the increase of his family, and perhaps from habitual improvidence, his affairs previously to his departure for England had become greatly embarrassed, and that he was a necessitous man, if not absolutely in want. Erasmus, than whom no one is more likely to have been acquainted with the real state of his friend's position, expressly says, in one of his letters, that "hic frigent artes" and the want of encouragement drove Holbein to seek his fortune in England.

The determination of Holbein to visit this country has been attributed to the invitation of some exalted person, and both the Earl of Arundel and the Earl of Surrey are named

as having invited him; but neither dates nor circumstances agree to establish the identity of either of these noblemen, the former of whom died an old man in 1524, and the latter of whom in the same year became Duke of Norfolk, and had for some years previously been engaged in military matters in Ireland and Scotland. However this may have been, it was no doubt with the friendly counsel of Erasmus that he came hither in search of patronage more liberal than his own country seemed willing to afford, for it is to him that he was indebted for a direct introduction to the then most influential person in the kingdom, the Lord Chancellor, Sir Thomas More, who, for his friend Erasmus's sake, received him with the greatest kindness and consideration.

He quitted Basle in 1526 on his way to England, travelling, it is supposed, in an almost penniless condition, and having to stay some time in several of the cities through which he passed to earn the means of subsistence. An anecdote is related of him during one of these stoppages, at Strasburg, which it must be confessed would be more interesting if a similar legend had not been appended to the names of two or three other painters, upon equally good authority. As the tale goes, he had applied to a great (unnamed) painter for employment, and upon being requested to give some specimen of his skill, had produced a highly-finished piece, in the most prominent part of which



PORTRAIT OF ERASMUS, BY HOLBEIN.

he painted a fly, so exquisitely resembling nature, that the great painter (who happened to be absent when the picture was brought to him) on seeing it mistook it for a real fly, and endeavoured to whisk it off with his hand! Filled with delight and wonder (as he might well be) he immediately sent all over the city in search of the surprising would-be journeyman; but Holbein, whose only desire would seem to have been to astonish the great painter, was no where to be found. Nothing more of a remarkable nature is said to have occurred to him on his journey.

At this point of our account of Holbein's career, some notice, however brief, of the state of art in this country in, and some time sequent to, the year 1526, seems to be requisite in order to illustrate clearly the position which the then condition of art assigned to him.

"Art," (observes Allan Cunningham, by which he means *pictorial art*), "in no country could well be lower than it was in England when

Henry VIII. succeeded his father, and artists never stood lower, either in the scale of genius or in the estimation of mankind. They were numbered with the common menials of the Court; they had their livery suit, their yearly dole, and their weekly wages. Their works, too, were worthy of their condition." This, we believe, is the simple truth. Up to this period, painting (as well as we can judge from this distance of time,) seems to have been almost limited to the adornment of missals, and to the illuminating of manuscripts; these performances, splendid in their excess of colour and of varied ornament, have, many of them, come to be of great historical value, as records of prevailing costumes, manners, and character, but add nothing to the treasures of true art. And even this rude form of art had, at the time to which we refer, been gradually sinking into disuse, as year after year (for nearly forty years) the wonderful printing-press had poured forth its black, though light-disseminating, pages. But though so poor in art, the con-

BIBLE ILLUSTRATIONS.—BY HOLBEIN.

JACOB BLESSING EPHRAIM AND MANASSE.—*Genesis*, Chap. 48.INTELLIGENCE BROUGHT TO DAVID OF THE PHILISTINES FIGHTING AGAINST KEILAH.—*1 Samuel*, Chap. 23.SOLOMON UPON THE BRAZEN SCAFFOLD.—*2 Chronicles*, Chap. 6.THE BUILDING OF THE TEMPLE.—*Ezra*, Chap. 1.

cluding years of Henry VII.'s reign were rich in intellectual and moral influences. It was then that the introduction of Greek and Roman literature into England took place,—the kindling of the pure flame before the effulgence of which the darkness of long ages of ignorance and barbarism was dissipated like mist before the rising summer sun. How the study of these noble languages, in our public seminaries, (pursued, as it was, in opposition to the furious antagonism of interest and ignorant superstition,) served in later times to help forward, (even if it did not induce,) that mighty social convulsion to which we give the name of the Reformation, is beside our purpose to dilate upon: but there is one inference to be drawn from the consideration in question directly illustrative of our subject, which is, that men's minds were so fascinated and engrossed by the acquisition of the countless riches of learning with which they found themselves surrounded, as with the objects of a new and unspeakably beautiful world, that they felt no intellectual desire beyond; and that, therefore, painting, which had nothing present to offer comparable with the noble ideal forms with which they were daily becoming better acquainted, was held of no account. It is deeply interesting to see these results in England, springing from causes which

in Italy crowned art with an eternal glory, and made its parent country the pride and wonder of the civilised world.

But with the commencement of the succeeding reign came bright promises for hitherto-neglected art. The King, young, rich, and learned, (after a fashion, it is true,) was ambitious of rivalling in pomp and rich expenditure the most elegant courts of Europe, and would have spared no pains or money in the accomplishment of his object. But from the pursuit of means for the gratification of this comparatively innocent desire, his attention was diverted continually by the force of his wild passions, the extraordinary circumstances of the times, and by the promptings of a busy devil within him, which made him the perpetrator of deeds of villany as black as any that history's darkest page is stained with. He formed, however, a collection of some 150 paintings, no doubt by the best Italian and Flemish masters; and how he cared for the subject of the present biography we shall shortly see. It is true, that the subjects generally of the pictures here referred to prove Henry to have possessed more money than taste; but Raffaele is known to have painted a St. George for him; and, supposing him to have been moved to the purchase of these works by vanity merely, how much was to

have been expected even from so poor a source, when such painters could be made to minister to it? Crude and little valuable as Henry's collection was, (compared with the collections of our own time,) it was the only one of any importance in England, and was enriched with several important additions from time to time, and especially by the ill-fated Charles I., who had a great taste for art. Casual and inefficient as was the patronage bestowed upon art by Henry VIII., it is from his reign that what is called modern art in England must take its date; and first upon the list of its great professors, in point of time, undoubtedly stands the name of Holbein.

We have spoken already of the manner of his reception by Sir Thomas More. For the three years following his arrival he lived entirely at Sir Thomas's house in Chelsea, painting portraits of the Chancellor and his family, and enjoying a close intimacy with that great man, and with the noble and learned circle, of which he was the centre. The portrait of his kind friend is a remarkably fine one; the boldness and vigour of More's intellectual character,—the look, at once serene and far-sighted, of the dreamer of Utopia, is rendered in such a way as makes it impossible for us to doubt the fidelity of the resemblance. It is to be regretted that we have no account of Holbein's personal history during these years; but his industry, at least, is strongly testified by the numbers of portraits he painted. We may judge, too, from the trouble which Sir Thomas took when he determined upon introducing him to his master, Henry VIII., that nothing had occurred to lessen the esteem which he had from the first entertained for him. This kindly office, (which is the last act related of Sir Thomas More in connection with Holbein,) was performed with much tact and judgment. Knowing the King's real or affected taste for painting, and well understanding his excitable temperament, he took such means in behalf of his *protégé*, as promised to at once strongly impress his Majesty in his favour; he, therefore, invited Henry to a special entertainment, having first arranged in the best manner about the sides of the great hall of his house the chief of the pictures which Holbein had painted for him. It is pleasant to think how amply he must have felt rewarded in witnessing the surprise and delight of Henry upon entering the apartment so prepared for him. Henry warmly expressed his admiration, and demanded if the painter of such pictures were living, and could be had for money. This question being the result desired and anticipated by Sir Thomas More, Holbein was, of course, immediately introduced. Henry forthwith engaged him in his own service at a salary of 200 florins, (30*l.*, as we learn from some books of expenses belonging to the royal household,) besides payment for his pictures, and gave him an apartment in the palace.

From the time of this important event in Holbein's career, all that we know of his history is drawn from the works of his hands, and from an anecdote or two connected with them. Through the influence of his position, as painter to the King, he soon gained the notice and afterwards the esteem of the flower of the English nobility; and we owe to him the almost speaking likenesses of a crowd of men and women (good and bad) of imperishable name, who thronged the Court of Henry VIII., at a period of the highest historical interest and importance.

In 1531, Holbein was sent into Burgundy by his royal patron on a mission of much delicacy; this was to paint the portrait of the Duchess Dowager of Milan, widow of Francis Sforza, who, after the death of Queen Jane Seymour, had been recommended to Henry's notice for a wife. How Holbein executed his office on this occasion, we are not told; but the lady's answer to the matrimonial proposal of his master which accompanied him, is celebrated: it was that "if she had two heads, one should be at the service of his Majesty: whereas, having but one, she preferred to lead a single life;" a jest which must have been severely felt by the selfish and cruel tyrant. After two or three more unsuccessful negotiations of a like kind, the princess Anne of Cleves was proposed as worthy to fill the throne of the divorced Catherine and the decapitated Ann Boleyn; but Henry, though he had then borne the weight of a widowhood, vexatiously protracted for two long years, was not inclined to make a blind bargain in such a matter; Holbein was, therefore, in 1539, sent to paint her portrait for his Majesty to choose by. This time Holbein (by what motive impelled it is now impossible to ascertain) truckled with his office, and brought back such a false and flattered likeness as wholly deceived his master, and led to the most pitiable results. Henry was struck with the beauty of the princess, as she was represented in the picture, and impatiently busied himself in preparing all things needful for the reception of the intended bride. When the intelligence reached him that she had landed at Rochester, his ardour and curiosity were so great, that he disguised himself, and hastened forward to meet her. Sir Antony Brown, the Master of the Horse, who had been sent to deliver a present from his Majesty to the princess, declares, that upon seeing her Highness, he was "never so much dismayed in his life, to see the lady so far unlike what was reported." For Henry, one glance was enough to change the hopes which had sprung from his warm fancy, into disappointment and disgust. He was "marvellously astonished and abashed," as we are told by Lord Russell, who stood beside him. He felt bound, however, for political reasons of great moment, to go through the ceremony of the marriage: but a few months afterwards, he rejected her from his bed, declaring that he could never take any pleasure in her society, and coarsely described her as a great Flanders mare; at the same time peremptorily commanding Cromwell, (through whose exertions mainly the marriage had been brought about), to invent some means by which to rid him of a companion so distasteful. Certainly, if Lady Anne's personal attractions fell far short of the flattered

portrait given by Holbein, she could have had but little to boast of in those respects, that is, according to modern notions of beauty; and one conceives rather a mean opinion of Henry's taste, if he really thought even Holbein's portrait of her beautiful. Her forehead, as it is represented, is broad and cold; her eyes, small and lustreless; her mouth, thin and void of character; the general expression in her face being that of weakness, unrelieved by any appearance of mildness or affectionateness of disposition. It is a curious and unexplained fact in connection with this miserable affair, that the weight of Henry's angry disappointment, fell wholly upon his vicar-general, who had acted solely upon grounds of policy and with the concurrence of his master, instead of upon Holbein, who had, to all intents and purposes, betrayed his trust, by bringing back a false, and (with him what was very unusual) greatly flattered portrait of the proposed bride.

From first to last, it appears that Holbein enjoyed the highest esteem of Henry, whose regard for him was shown in a very strong light on one occasion. A nobleman of high rank called upon him one day, when he was engaged with a sitter, and demanded to be admitted to his apartment; being begged to defer the honour of his visit to some more convenient time, he conceived that an insult had been offered to his nobility, and flew into such a rage that he violently burst open the doors which impeded him and rushed up the stairs; upon the landing he encountered Holbein, who in a great passion pushed him backwards, so that he fell from the top to the bottom. Reflecting immediately, however, on the rashness of what he had done, Holbein hurried away in search of the King, and was so fortunate as to find him. The nobleman, much bruised, though not so much as he chose to pretend, soon followed, and complained loudly of his grievance. Henry having listened to the whole of the complaint, ordered Holbein to beg pardon for his offence; but the nobleman declared that nothing short of the life of his injurer would content him for the indignity he had suffered. Upon this Henry looked at him sternly, and replied, "God his splendour! my lord, you have now not to do with Holbein, but with me; whatever punishment you may contrive by way of revenge against him shall assuredly be inflicted upon yourself: remember, pray, my lord, that I can, whenever I please, make seven lords of seven ploughmen, but I cannot make one Holbein even of seven lords."

Of Holbein's further history up to the time of his death little is known. He survived his patron about seven years, being, it is supposed, retained in the service of the successor to the throne, the young Edward VI. and after him in that of Queen Mary the "bloody," of whom he has left us a fine portrait painted in 1553. He died in 1554 of the plague; but whether at the lodgings in Whitehall, which had been assigned to him by Henry VIII., or in the house of the Duke of Norfolk, in the Priory of Christ Church, near Aldgate, then called Duke's Place, is not certain. St. Catharine Cree Church, Leadenhall-street, has been mentioned as the place of his interment, but upon very doubtful authority.

No painter has received more attention, or has had greater justice done to his works than Holbein; and it would be difficult to hold them in too high a degree of esteem, so multitudinous, yet each so excellent are they. He will by no means bear comparison with the glorious Italian painters contemporary with himself, but even this conceded, he remains "a reverend name in art," the first worthy professor (to say the least) of portrait-painting in England—that walk of art which has ever been and ever will be the most popular in every country; which, in later times, when trodden by Sir Peter Lely, Sir Godfrey Kneller, Sir Joshua Reynolds, and Sir Thomas Lawrence, became as truly a fashion as dress itself, or as, in the days of Steele and Addison, the collecting of old china. The number of his portraits, catalogued by Walpole, fills us with surprise: the list seems endless; among a host of others, those of Anne Boleyn, Catherine Howard, Jane Seymour, Anne of Cleves, Catherine of Arragon, Edward VI., Sir Thomas More, of which we have before spoken, Erasmus, Cromwell, Surrey, and Wyatt, occur to memory, all as admirable as pictures as they are historically interesting. One is astonished, too, at the extraordinary number of his works, and the exquisite finish which he invariably bestowed upon them, considering how strongly he was addicted to wine and revelling companionship; but the truth is, he painted with uncommon rapidity; that which would have cost another many days' labour being to him but the work of a few hours. His invention was wonderfully fruitful. His colouring has been said, and we think not unduly, to resemble Titian's; certainly his carnations are as fresh and life-like as the sweetest of that great master's, and his pencil has exceeding tenderness. A number of inferior works have been attributed to him, but these are without doubt all spurious; his genuine works are sufficiently distinguishable by the fine round imitation of the flesh. He painted beautifully in distemper, and learned the art of painting miniatures in this style from Lucas Cornelis, or Cornelioz, who was also in the service of Henry VIII., but far surpassed his teacher, his paintings having all the force of oil-colours, and being finished with inimitable delicacy.

Lucas Cornelioz, the only painter of any note associated with Holbein in the service of Henry VIII., was reputed an extraordinary artist in his time; he was born at Leyden, in 1493, and became a disciple of Cornelius Englebrecht. He was called "the Cook," in consequence of his having been under the necessity of following that profession, during a period of trouble in his native country. He came to England (in what year is not precisely known, though some think it was soon

after 1509), and was graciously received by Henry, who was happy to secure the services of any good painter visiting his kingdom. There is a picture of his at Leyden, representing the Woman taken in Adultery, which is highly valued; and at Penshurst, in Kent, (Sir Philip Sydney's house) are portraits by him of the Constables of Queenborough Castle from the reign of Edward III. to the third year of Henry VIII. He died in 1552.

As an historical painter Holbein is better known on the continent than in England; we have, however, in the few compositions which we possess, quite enough to prove his great power in that walk of art. For the Steelyard Company he executed two large works, and for the Company of Surgeons a fine one representing Henry VIII. incorporating that body by a royal charter. In the hall of Bridewell there is another fine picture of his, similar in subject to the one last named; it represents Edward VI. granting that palace to the Lord Mayor of London for a hospital. Abroad, in addition to the works already mentioned, there is in the royal collection at Paris a powerful picture by him of the Sacrifice of Abraham. But if proofs were wanting to establish his reputation for high excellence as an historical painter, ample ones would, we think, be found in the little book of his Bible Illustrations, published at Lyons in 1538. These designs are admirably engraved on wood, are ninety in number (four of them the same as the first four of the Dance of Death, published the year before, and generally attributed to Holbein), and evince, many of them, fine power of composition. Prefixed to these are some highly complimentary Latin verses, by his friend Borbonius, which, allowing for the partiality of friendship, still indicate something of the estimation in which they were held; in the verses Zeuxis, the ancient Sicilian painter, who in one of his pictures painted some fruit so naturally that the birds flew down and picked at it; and Parrhasius, the Ephesian, who in competition with him, painted a curtain so exquisitely that Zeuxis desired him to draw it aside, that the picture which he imagined it to cover might be seen, are introduced in Elysium conversing with Apelles who laments that they had all been excelled by Holbein.

Among his secondary powers Holbein's memory of features was wonderfully retentive, a striking proof of which he gave once during the time he resided with Sir Thomas More. He had been speaking of a nobleman whom he had seen some years before he came to England, but could not recollect his title; being pressed to describe this personage, he sketched a likeness of him which was so exact that those present immediately named the original.

Most of those who have written of Holbein agree in stating that he painted with the left hand, but Walpole thinks it a proof of the incorrectness of this tradition, that he has represented himself in one of his portraits holding the pencil in his right hand. Chalmers objects to such a conclusion being held sufficient to set aside the testimony of the many authentic writers on the subject, on the ground that although habit and practice might enable him to handle his pencil familiarly with his left hand, yet, as it was so unusual, it must have had but an unseemly and awkward appearance in painting; and that, probably, this might have been his real inducement for representing himself without such a peculiarity.

We have before intimated that the great talents of Holbein were by no means confined to painting. He made a multitude of designs for engravers, statuaries, armourers, jewellers, &c. In the British Museum there is a book full of his rich designs for jewels; and there was a book in the possession of Inigo Jones containing a large number of drawings for weapons, hilts, ornaments, scabbards, swordbelts, buttons, hooks, hatbands, girdles, shoe-clasps, knives, forks, salt-cellars, and vases, for Henry VIII.

GOSSIP ABOUT BUTTERFLIES AND OTHER INSECTS.*

THE appearance of the female gnat differs from that of the male in several particulars, the body being larger, and the horns destitute of the beautiful plumes so conspicuous in the male.

At *n* in fig. 11, is a greatly magnified view of the forepart of the male gnat. It shows the beautiful structure of the feathered horns, and the palpi, or feelers, above the proboscis, which latter appendage is not here shown. At *i* in the same figure, is shown the head of the female. Swammerdam minutely dissected and described the trunk or sting of the gnat, the point of which, he says, is so fine that with the most powerful microscope he could detect no visible end, whilst the edge of the sharpest razor or the finest needle are easily seen, and appear of considerable ruggedness and bulk. A part of his figure is given at *j* in our engraving, which shows the fine portion of the sting issuing from its sheath. But this indefatigable anatomist was not satisfied with an external view; he succeeded in dissecting the sheath, and detecting within it several lancet-like instruments (*x*), the precise functions of which are not known, but which possibly act like the lancets of the cupper, forming the wound or wounds from which the blood is extracted through the tube or sheath, by similar means. The proboscis, or sting-sheath, is placed between and beneath the palpi or feelers (*m m*), which conceal it. At *n n* are represented the feathered horns, or antennæ, which spring from a pair of round tubercles

placed between the eyes, and better shown at *r*, exhibiting the head of the female, where the antennæ (*o o*) are shown to be comparatively bare. At *r*, is represented the eye, showing the numerous lenses of which it is formed. A magnified view of the wing of the insect is given at *l*, exhibiting the beautiful disposition of its partial covering of scales.

The aquatic transformation (metamorphosis) of gnats was first discovered by Dr. Hook, who was one of the earliest members of the Royal Society, in the time of its founder, Charles II. Since he published his description, it has been confirmed by all succeeding observers, and every entomological student at present satisfies himself of its accuracy. Nothing material has been added to it, and we give it in the Doctor's own words as the most interesting. He says:—"But that which was most observable in this creature was its metamorphosis; for having kept several of these animals in a glass of rain water, in which they were produced, I found, after about a fortnight or three weeks' keeping, that several of them flew away as gnats, leaving their husks behind them in the water. This made me more diligent to watch them to see if I could find them at the time of their transformation; and, not long after I observed several of them to be changed into an unusual shape, wholly differing from what they were before, their head and body having grown much bigger and deeper, but not broader, and their hinder part, or belly, smaller, while the head and horns (fig. 10, *b*, *e*, and *r*), now swam uppermost, and the whole bulk seemed to be grown much lighter, for then, by my frightening it, it would, by frisking out its tail, sink itself below the surface towards the bottom, and the body would more swiftly reascend than when in its former shape.

"I still remarked its progress from time to time, and found its body still to grow bigger and bigger; Nature, as it were, fitting and accounting it for the lighter element of which it was now going to be an inhabitant; for by observing one of these with my microscope, I found the eyes of it to be altogether different from what they seemed before, appearing now all over pearly or knobbed, like the eyes of gnats. At length I saw part of the creature to swim above, and part below the surface of the water, below which, however, it would quickly plunge itself if I by any means frightened it, and presently reascend to its former posture. After a little longer expectation, I found the head and body of a gnat begin to appear, and stand clear above the surface; and by degrees it drew out its legs (see fig. 9, *r*), first, the two foremost, then the others; and, lastly, its whole body,

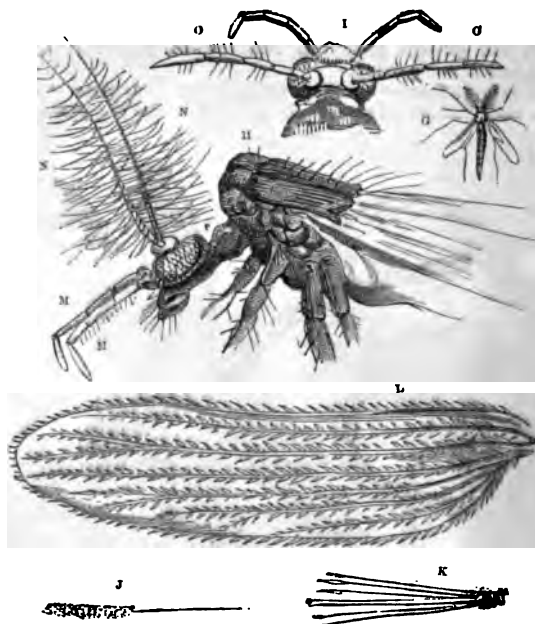


Fig. 11.

perfect and entire, appeared out of the husk (which is left in the water), standing on its legs upon the top of the water; by degrees it began to move, and soon after flew about the glass a perfect gnat." (See fig. 2, *g*).

THE DRAGON FLIES.—Another interesting family of insects, aquatic, or water-living through part of their metamorphosis, and very common to the British islands, is composed of the *Libellule*, or dragon flies. There are several species of them; and although for the most part they are to be seen fitting over the surface of the water of ponds and streams, yet they frequently make their way into the houses of even large towns, in pursuit of prey. They are then often chased by the children, who in the country parts usually call them Harry Longlegs. Their wings are large and transparent, and in some are beautifully stained with a large oval mark of purple, or sometimes of deep olive brown

* Concluded from page 139.

as of grain. The purple-winged species *Calepteryx virgo*, (c and d, fig. 12), and some others, amongst which is the delicately formed one represented at *r* in fig. 12, belonging to the genus *Agrion*, seldom are found far from the water, in which they commenced their transformations. But the large flat-bodied species, *Libellula depressa*, (B in fig.



Fig. 12.

12), as well as that shark among insects, the dragon-fly (see *i*, fig. 13), and others of similar voracity and activity, pursue their prey over meadows and gardens, sometimes into the streets, and often into our parlours and drawing-rooms.

These insects furnish another example of the complete and unquestionable classification of several orders at least, by the characteristics

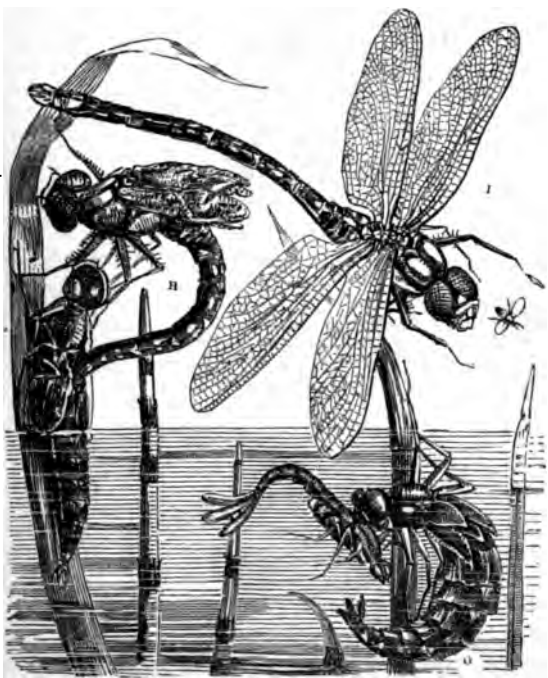


Fig. 13.

of the wings. The dragon-flies belong to [the order *Neuroptera*, which means *nerve-winged*, so called from the beautiful network of the wings, formed of a variety of fine nerves and sinews. This order, like others, is divided into several distinct families, of which the *Libellula*, or

dragon-fly tribe, compose one. This family (also like other families in other orders) contains several genera, such as *Libellula* (which gives the name to the family) *Calepteryx*, *Aeshna*, &c.

These are the generic names. To these are added other names called "specific," to distinguish the species, into which each genus of the family is divided. Thus the flat-bodied dragon-fly is called *Libellula depressa*, our example at c and d in fig. 12, *Calepteryx virgo*, (virgin) and those at g, h, and i, in fig. 13, *Aeshna maculatisima*, (much-spotted); *Aeshna flavipennis*, (yellow-winged); and *Aeshna juncea* (rush-like).

The fierceness and voracity of the dragon-fly are extraordinary. It will attack other predatory insects of as great apparent strength and courage as itself, the wasp and the hornet, for instance, and quickly overcome them, for it is protected against their stings by the horny corslet, in which its thorax (the forepart of the body, shoulders, breast, &c.) is encased. In the course of an hour it will devour and digest three or four times its own bulk, seizing small beetles, such as the lady-bird, and the largest moths and butterflies.

We are here reminded (by beetles and dragon-flies) of some very curious facts which disprove the notions of the poet Cowper and other writers respecting the sensibility of insects. Shakspeare gives warrant to the error in his famous lines:—

—The little beetle feels as great a pain,
As when a giant dies.

On the contrary, their insensibility to pain is beyond that which might be supposed the greatest, consistent with a stimulus to the universal instinct of self-preservation. Kirby and Spence give numerous proofs of this. Burmeister impaled voracious and active insects, which he supposed from their energy to be also sensitive, and they lived for months, without any discernible loss of health or voracity. The late Mr. Haworth, entomologist, cut off the long posterior part of the body, the abdomen, or belly-part, (see fig. 13, *i*), but the obdurate little insect-shark abated not one whit of its fierceness or devouring appetite, but seized and swallowed every kind of prey that was forced within its reach, not feeling that it was deprived of the great receptacle of its food! its only noticeable inconvenience was that it could not fly steadily, for want of the long balance and rudder of which it had been deprived. Mr. Haworth remedied this inconvenience, by constructing an artificial tail, formed of a geranium stalk, and furnished with this substitute, the dashing *Libellula* resumed his flight, and continued to capture and devour insects as long as he remained within the observations of the experimentalist.

However, it is the aquatic condition of their transformations, of which we chiefly have to treat in this chapter. Thus, then, it proceeds:—The female deposits her eggs on the surface of the water, where it is soon hatched at the bottom, and produces the larva, represented in fig. 13. At g in fig. 13, we show the larva of the great long-tailed dragon-fly, which is quite as terrible to its neighbours in the water, as it is in its perfect state to the other insects of the air. Those who have heard the lectures of the learned Professor Dr. Bachhoffner, at the Royal Polytechnic Institution, are familiar with this larva in the attitude and act in which it is represented in our illustration. We should observe that there is not much difference of appearance between the larva—(the first stage of metamorphosis)—and the pupa and nymph—(the second stage)—of this insect. The skin of the larva becomes the pupa-case, and the habits as well as the form of the former continue. The development of the perfect insect goes on under the apparent larva-skin, and even the legs of the fully-developed fly are encased within those of the pupa case—(for it is really so, and no longer larva)—which, with all the other parts retain their form after the fly has escaped; the pupa-case or former skin of the larva retaining its perfect form, and, in appearance, damaged only by a slit in the back, which afforded an outlet to the full-grown dragon-fly—(see fig. 13, *n*). The process of escape from the pupa-case is thus performed:—the larva—(now pupa)—creeps up to the surface of the water upon a blade of grass or upon a rush—(which, by the by, led the naturalist Moffat, a contemporary of the great enquirer and observer, Swammerdam, to say, that the *Libellula* were produced from bullrushes); at the top of the water, in the free air, which is thenceforth to be the region of its life, and the theatre of its ferocious exploits, the dragon-fly is generally extricated; but sometimes the larva-like pupa, ventures away from the water, and, as Swammerdam and others since have noted, the last change in the metamorphosis is observed to take place upon a blade of grass in the dry field.

At *a*, in fig. 12, we give the larva of the flat-bodied dragon-fly, or *Libellula depressa*. At *c*, fig. 12, is the larva of *Calepteryx*; at *e*, that of *Agrion*.

We shall take another opportunity of explaining the answer to our question—"What does the insect do for a living? that is, what return do they make to nature for all the pains lavished on their formation, decoration, and enjoyment?" It would be easy to show that they fill a very important place in the animal world, and that they render even to man most valuable good offices, amply compensating for the casual annoyance of a few disagreeable tribes, which, however, have their own indispensable functions to discharge in the well-ordered economy of animated nature, where, with all abundance, there is nothing superfluous—nothing dispensable.

THE BOWER BIRDS,

IN THE GARDENS OF THE ZOOLOGICAL SOCIETY, REGENT'S PARK.

THE remarkable example of bird architecture which we have represented below is the production of a pair of *Satin Bower Birds*, which have lately been obtained by the Zoological Society from Mr. Aspinwall, of Sydney, by whose care and good management they were successfully imported into this country. They are the first living examples of the breed which have ever reached Europe; and their immediate recurrence to their natural habits when established in the new aviary of the Society, is a fact which cannot fail to be of great interest both to the members and to the visitors, who seek in that extensive menagerie an insight into the mysteries of exotic zoology.

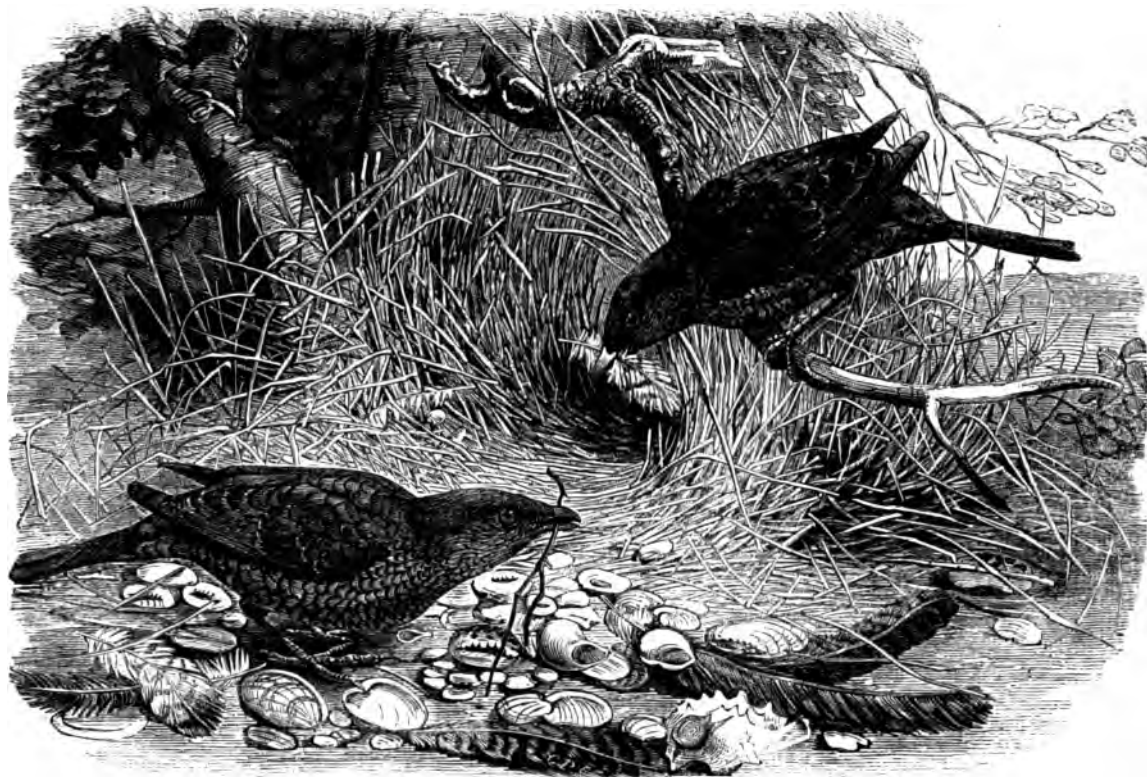
The *Satin Bower Bird* was one of the earliest known species in the Australian fauna, and probably received the name of *Satin Grackle*, by which it was described in Latham's "General History of Birds," from the intensely black glossy plumage of the adult male, which the young bird at the gardens is now beginning to assume, as indicated in the upper figure of our Illustration. But although the existence of this bird was noticed by most of the writers on the natural history of Australia subsequent to Latham, it appears that no suspicion of its singular economy had extended beyond the remotest settlers, until Mr. Gould, whose great work on the "Birds of Australia" is known to every one, unravelled the history of the *Bowers*, which had been discovered in many parts of the bust, and which had been attributed to almost every possible origin but the right one.

The constructive instinct of the *Satin Bower Bird* (*Ptilonorhynchus holosericeus*) is rivalled, according to the statement of Mr. Gould, by two species of a closely allied form, known to ornithologists as

Chlamydera maculata and *Chlamydera nuchalis*. The former of these constructs a bower nearly three feet in length; and there is no question but that it would thrive as well in confinement as the *Satin Bird*, if the Society could obtain specimens.

The Bower, as will be seen by the Illustration, is composed of twigs woven together in the most compact manner, and ornamented with shells and feathers, the disposition of which the birds are continually altering. It is probable that, in a state of nature, these decorative materials are conveyed from considerable distances to the site of the bower, which is uniformly beneath the shadow of a tree. The extreme shyness of the birds, who retire from the bower on the first approach of a spectator, accounts for the origin and object of these structures remaining so long unknown, even to the settlers. They have no connection with the nest, and are simply prying-places, in which the birds divert themselves during the months which immediately precede nidification.

The Birds in the Regent's Park occupy themselves at intervals throughout the day in altering or making additions to the bower, chasing each other through it, saluting each other with grotesque movements, and uttering varied notes of love, anger, and reconciliation. The Illustration has been engraved by permission of the Council of the Zoological Society, from a drawing in their possession made at the Gardens by Mr. Wolf, whose talent is inferior to none in delineating the characteristic action of birds. The Engraving is necessarily of small size, to suit the space here devoted to it; but the birds themselves are nearly as large as a jackdaw. The female is green in colour, the centre of the breast feathers yellowish; the unmoulted plumage of the male is similar: the eyes of both are brilliant blue.



THE BOWER BIRDS IN THE ZOOLOGICAL GARDENS.

GERMAN PLAYS.

III.—ACTORS AND POETS.

THE earliest of Schiller's plays was "Die Rauber," (*The Robbers*). It was the work of a very young man of democratic views, who looked upon the assumption of property as the great theft, and on the poor as the victims of a social system founded in robbery. With the authorised oppressors of mankind, he contrasted the robber in the eye of the law, and painted him as comparatively pure and innocent. Persons of wealth were, in the poet's point of view, the great criminals, and persons in authority the most legitimate butts for ridicule. In "The Robbers," Francis, the younger brother, usurps the estate of Charles, the elder,

and so prejudices his father, Maximilian, the Count of Moor, against him, that he is driven to desperate courses, becomes an outlaw, and the leader of banditti. Having effected this object, Francis next compasses the death of his too confiding parent, and causes him to be imprisoned in a dungeon, and kept on bread and water, from which the old doating man is delivered by Charles and his band, which had accidentally bivouacked in the vicinity. Hither the unnatural Don is dragged by the ferocious and indignant horde, and thrust headlong into the same wretched hole in which he had confined his father, and Amelia, the betrothed of Charles, who had followed the party, is sacrificed in redemption of an oath sworn by him to his unruly confederates. This done, the robber-hero, having nothing left worth living for, delivers himself into the hands of justice. Wild, incoherent, and utterly chaotic as this play is, it contains the elements of greatness. But at the period when

It was produced, its defects were equivalent to merits. The drama, for instance, was free from the starched pedantry of the French school, which then enslaved the stage; and in *Frauen*, a sturly, intellectual kind of villain was portrayed, which, with a sort of lago or rather Richard-the-Third power, was calculated to impress strongly an audience; while the part of Charles appealed to the popular and revolutionary sympathies of the day. Combining the structure and sentiments of the drama, both art and society were delivered from trammels. The author and his play were alike lawless at this epoch; and this was needful, that the old form of play-writing should be broken up altogether, and a new one become possible, fitted to the spirit of a better time. The new wine required new vessels, and it was not long ere such were provided.

The play of "The Robbers" has been frequently performed in England; but the monotonous style in which the affair was lately sermonised at Drury Lane theatre, not in the least prepared the spectator for the animated spectacle it presented at the St. James's. It was the night of Herr Kuehn's greatest triumph; for Devrient did not play in the piece, and the former artist, in the part of Francis, had the field to himself. In many respects, this was not only a remarkable but a wonderful performance. Herr Kuehn is as flexible in his countenance as in his limbs, and changes its expression instantaneously, and in the employment of his eyes, he is very potent. In the use of these appliances and means, he is exceedingly liberal, and put them all in requisition, sometimes pushing them even to extravagance. It was thus that he watched the agony of his shrinking parent, while writhing beneath the forged tale of his son's death; that in the scenes between Amelia and Herman, his own cowardice and villainy, though over-acted, were yet powerful dramatic displays; and that in the description of the terrors of his dream of the "Last Judgment," the appalling was mingled with the burlesque. The manner in which he sought to escape the vengeance of the band by leaping through the window, was perfect to a point; every inch of his body was physiognomical of desperation; and when brought into the presence of his father, and doomed himself to suffer the pain and confinement that he had inflicted, his abject gesture was made out to the minutest details. What wanted, then, Herr Kuehn of the great actor?—Taste in the higher developments of tragic emotion. Accomplished in the pantomime of action, he knows not where he should stop. He not only copies, but exaggerates nature; he does not properly imitate her; for artistic imitation implies selection, and Kuehn exhausts all his resources without discrimination, and careless whether the result be or not beautiful. Of the true artist, within the limits of taste, it can always be said:—

"Half his strength he put not forth, but checked
His thunder in mid volley."

And here, in an Art-Journal like this, we cannot do better than remind the actor, who would be an artist, in the words of a German teacher on histrionic gesture, that "he ought, in the first place, to seize all occasions of observing nature, even in those effects which are unfrequent in their occurrence; and in the second, that he should never lose sight of the main end and grand design of his art, by shocking the spectator with too coarse and servile an imitation." In illustration of these rules the master of gesture points to the example of a great actress whose acting might probably have lost one of its most natural and affecting traits, if she had never been present at the death-bed of a dying person, and had thus opportunity of observing the habit that individuals in the agonies of death exhibit of pinching and drawing to and fro their garments; of which fact the performer alluded to made the most happy use in the following manner. At the moment when her soul is supposed to be just ready to quit her body, she gave signs of a slight convulsion, but this was apparent only at the ends of her fingers; nipping up her robe, while the arm in that action suddenly seemed numbed and powerless; the last effort of a smouldering flame, the expiring beam of a sun just ready to set. With regard to the second rule, the teacher proceeds to say, that "the agonies and approaches of death ought not to be represented with all the horrors which attend these dreadful moments in nature. The judicious player will soften down these horrors. His head should have more the appearance of a man sinking to a sound sleep, than of a person convulsed with strong agonies; the voice should be broken and altered, but not so as to give the effect of a disgusting rattling; in a word, an actor ought to acquire a manner of his own, in representing the last sigh of expiring mortality. He should give such an idea of death as every man would wish to feel at that crisis; though, perhaps, no one will ever have the good fortune to find that wish accomplished."

Such was the advice which M. Engel gave to the Berlin actors, and which Mr. Henry Siddons undertook to interpret for the benefit of English ones; and relatively the latter refers to the abominable grimaces and unnatural distortions in which some players so indulge themselves under similar circumstances. He had, he tells us, seen a *Macbeth* die in convulsions, which were certainly very naturally imitated, but at the same time have thrown the spectators into convulsions of laughter, equally natural with his own. A Juliet also, he remarks, will sometimes fall on the boards with such violence, when she hears of the death or banishment of her lover, that we are really alarmed lest her poor skull should be fractured by the violence of the concussion. Great as are the talents of Herr Kuehn, and much as we may applaud our own *Macbeths* and *Juliets*, these excesses both in them and him are to be set down as "beside the purpose of playing."

The example set by Lessing, Schiller, and Goethe, of preferring the domestic and historical to the classical, and of suiting the tastes of a modern public with something nearer to its own times and habits, was carried to an objectionable extreme by Kotzebue, who was, as it were, a kind of worse Euripides, a thoroughly prose one, among German dramatists. Kotzebue was, in a word, a playwright, and nothing but a playwright. He manufactured all manner of pieces at a moment's notice. This was his vocation; a thoroughly theatrical artist, his productions were for all boards, and all companies; from the crude farce to the spectacular tragedy, all was alike to him; he was learned in the techniques of the scene, and uniformly successful in their application.

Critics in general have expressed great contempt for Kotzebue; and in this country, while his "Stranger" always draws money to the treasury, good judges condemn it equally for its immorality and its flimsiness, both in subject and structure. On a late occasion, when it was performed at Windsor Castle, an illustrious person is reported to have made a remark upon it which expresses the general opinion of the judicious reader, in a few words. "The play," observed her Majesty, "is totally uninteresting as a story, and highly immoral in its tone and purpose." Yet because of its familiarity in regard to its style and argument—its appealing wholly to emotion, and not to thought,—it attracts a large class of persons who go to a theatre neither to be amused nor instructed, but to indulge in certain morbid sympathies, and the luxury of maudlin tears. The numerous tribe of the weak-minded, and frail-hearted, find in its distress an image of their own, and looking on the portraits and declare it to be a likeness, are satisfied. It was in reference to such dramas, that Coleridge said, "it was always a bad tragedy that caused a deluge of tears." Lear, the most pathetic of dramas, only does this once; when the discarded monarch again recognises Cordelia, then the dew glistens in the eye, and the feeling of which it is the type is "exquisite exceedingly." Poetry, in all its ideal truth, rejects the unmitigated pathos that intensifies vulgar misfortunes, and refuses to be sacrificed to situations and sentiments that require no art for their setting, but may be borrowed from real life, and literally copied, with the smallest degree of insight into the principles of beauty, and the nature of those feelings by an appeal to which it is the business of the dramatist to purify the spectator's mind of sordid passions and selfish desires. These remarks undoubtedly tell against Kotzebue; and prove him, indeed, to have been a man of talent only, not a genius—a sad testimony, since all the mischief in art arises from the substitution of the former for the latter.

Goethe, however, thought, and with a certain degree of justice, that Kotzebue had been unfairly dealt with. Eckermann having praised the quick eye for common life, the dexterity at seizing its interesting side, and representing it with force, which the dramas of Kotzebue displayed, Goethe replied, that "What has kept its place for twenty years in the hearts of the people is pretty sure to have substantial merit. When Kotzebue," added the great critic, "contented himself with his own sphere, he usually did well.—'Twas the same with him as with *Ciudowiecky*, who always struck off admirably the scenes of common citizens' life, and as regularly failed when he attempted to paint Greek or Roman heroes." Something like this was said by Dr. Johnson of *Pomfret*; yet the poems of the latter have fallen at length to an oblivion from which they will now never be rescued. The same fate may probably befall Kotzebue, notwithstanding his present popularity. Goethe named several pieces of Kotzebue's as good, praising in particular the "Two Klingborgs," adding, "that none can deny that Kotzebue has been in many varied scenes of life, and ever kept both eyes open;" and that, "intellect, and even poetry, cannot be denied to our modern composers of tragedy; but they do not give their subject the hues of life; they strive after something beyond their powers; and for that reason I have been led," said Goethe, "to think of them as having forced talents; their growth is not natural." Such being the position of Kotzebue, it was perhaps right that by a company of German actors he should be represented. But it was as a writer of vaudevilles that the troupe at the St. James's wisely reproduced him. The pieces selected were "Der Arme Poet," (*The Poor Poet*), and "Der Gerade Weg der Beste," (*The Straight Way the Best*); the first being the original of "Monsieur Jacques," so well known on the English and French stages, but greatly inferior to its imitations.

That histrionic art in Germany is inclined to the poetic is clear, from the singular selection of Schiller's lyric, "Die Glocke," (*The Lay of the Bell*), for the principal dramatic representation of one evening, arranged as it had been by Romberg, with snatches of whose music the performance was accompanied. Here was merely the declamation of a poem by a company of performers; and the enthusiasm with which the stanzas were delivered was, indeed, something refreshing. This is a spirit which it is desirable to see spreading among actors, and would tend more to the desired revival of the drama, than all other causes put together, save the poetic impulse itself, which originates its creation. Thus it is that the stage may be delivered from the ultra-theatrical, and prepared for the more purely dramatic, in which the moral profit of the institution is more strictly involved. The influence left by the German company is not likely to perish: signs exist of its having been both extensive and profound; and we trust that their good example may be productive in more ways than one,—with managers, with actors, and with the public; and, more especially, with poets themselves, who are too apt to despair where they should hope.

Miscellaneous Notices.

THE NEW CRYSTAL PALACE.

Definite arrangements have been within the last few years entered into with Messrs. Fox and Henderson to erect the Crystal Palace in the grounds of the company at Sydenham, if indeed that can be called an erection in which the alterations are so many and material as to leave the building in possession of all of its original features. To the old characteristic lightness and airiness will now be added a solidity and grandeur of outline that bid fair to be prizing. The means which have been taken to effect this are mainly, the substitution for the old central transept of one of greatly increased diameter height, accompanied by two of the size of the original one, near the ends of the building, and, finally, adoption for the whole length of the nave of a gabled or wagon-headed roof of the same height as each of the two smaller transepts, into which it will fit. As the galleries in the existing building would seriously interfere with the growth of the plants which so large a portion of the interior is to be filled, they will be kept back to the outside walls, except at a few points (as, the corners of the transept and nave) in which the most striking views can be commanded by the coup-d'œil. There will be also a narrow gallery on the third story, close under the springing of the roof.

The building will form a vast conservatory, in which by simple means the most differing climates can be obtained in various parts, and the characteristic vegetation of the different quarters of the world fully represented. Among the foliage will be interspersed casts of the most noted groups and statues of the world—both those of antiquity and those of the present—in a manner which will be new to the great majority of those who witness it, and will at once settle the long-vaunted question of the right accompaniments to sculpture. There will be several quadrangles devoted to the illustration of the successive periods of Architecture and ornamental Art, and of various manners. Thus, the illustrations of Indian will be collected in a representation of the court of an Indian palace, with reception-rooms, &c., and its adjoining bazaar and shops. So, also, with Chinese. The Architectural series will extend from the Byzantine period to that of the Renaissance; great courts or quadrangles being appropriated to, filled with, specimens of the productions of the successive ages.

With the series of architectural and ornamental forms will be combined all such illustrations of extinct forms of Art as may be interesting, as showing either illustrations of the past or hints for the future. Thus, in connexion with Italian art will be introduced specimens of fresco, tempera, sculpture, &c.,—in connexion with mediæval design, specimens of calligraphy, metal working, mural decorations, embroidery, enamel, &c. All these, means of casts, fac-similes, and in many cases of objects themselves, are within the reach of the restorer;—and the whole will be so enclosed by foliage, interspersed with statues and other ornamental casts, as in no way to interfere with the harmony and entirety of one great general impression.

Large spaces will be left for the general purposes of exhibition; in which it is intended to have geological exhibitions,—arranged not as mere collections, so as to render it impossible not to comprehend order, construction, and connexion, of the various strata and their contained fossils, the appearance of country lying over each, &c. Also exhibitions of great staple materials of the world, from their condition through all their various stages up to the most perfect manufactures,—involving the presence machinery of the most complicated and interesting description in full work.

The grounds around the building—which are upwards of 250 acres—will be laid out as a park and garden, with the addition of one feature not common to English parks, that of fountains. Those Londoners who have gained their conception of a fountain from pigmy jets in Trafalgar Square and in the Temple gardens will find it difficult to realize those of which speak;—the highest jets of which will reach an altitude of 150 feet—while in mass and total effect they will equal those of Versailles. It is in contemplation to provide the lovers of manly sports with every opportunity for gratifying their desires, either taking the shape of cricket and archery, or that of the less common games of tennis, racquet and f. Besides these there will be baths and swimming-places, and extensive skating-grounds, so that while they will bear after one night's rest, they will not need the presence of any Humane Society officers for the preservation of the skaters.

TURNER'S PICTURES.

It is tolerably well known to those who, of late years, have had access to Turner's dwelling-house, that the pictures he has bequeathed to the country are in such a state as to require the immediate attention of the "restorer;" and if something be not soon done, they will in a very short time be comparatively worthless as works of art. We believe that Turner during his life-time applied to Mr. John Segnier to undertake the task, but was alarmed at the price named by the latter. The first question that arises on the subject is—what steps can the trustees of the National Gallery, and the executors under the will of a deceased artist, take to avert the threatened calamity? Turner's will is now before the Ecclesiastical Court; but so far as our legal knowledge extends, we presume that an application to the Lord Chancellor would obtain from the Court an order for the expenditure, out of the estate, of a sufficient sum of money to meet the exigencies of the case. Supposing this to be granted, the next thing is to find an individual every way qualified to execute so important a charge: the pictures of Turner are not of a character to be at the ordinary process of oil-painting usually undergone when in the hands of the restorer; so that whoever may be entrusted with them should be a person intimately acquainted with the artist's method of painting and the vehicles he made use of. Under any circumstances, the task will require the most judicious and careful management.—*Art-Journal.* We read the above with mingled astonishment and dread. We hope our respected contemporary is in error. E. P. I. J.]

THE AMERICANS AND THE WAVE-LINE THEORY.

Mr. Griffiths, the author of an American work on Naval Architecture, thus speaks of the wave-line theory in a letter to the *Scientific American*: "Allow me to say that the eye and the model have been the only channel through which improvements have been conveyed in the United States for the last forty years. American ship-builders have never adopted any theory having for its basis mathematical inquiry; however near they may have approximated the theory of wave-lines, in the determination of shape for their ships, it has, without a single exception, been the result of observation condensed into the rotundity on the model by the aid of the eye. The wave-line theory is regarded by ship-builders in this country as being but a partially developed system,—the merely determining the form of any line, or parallel line, of flotation, does not define the shape of the vessel; and beyond this we have never learned that any arbitrary law or tangible rule has been adopted, even by Mr. Russell himself; hollow water lines on both ends of the model have been built for thirty years in this country, and I have in my possession French drawings of vessels which have been built from, and which are from thirty to forty years old, with a large amount of hollow in the water-line, both forward and aft, and but for their limited length, would rival our clipper ships of the present time: here was the great secret of success the French enjoyed in their navy history over that of the English, in point of speed, until recently. The yacht 'America' is but an approximation to the theory of Mr. Russell; and if in her determination of a shape a theory has been resolved—a problem has been solved—it is of American, and not English origin. I speak advisedly when I say that her builder knew nothing of the theory of Mr. Russell when her model was made; and having investigated her peculiarities, I know that they do not conform to the theory of wave-lines as discovered by Mr. Russell."

NEWSPAPERS IN THE UNITED STATES.

The statistics of the newspaper press in America form an interesting feature in the returns of the late United States census. From these it appears that the total number of newspapers and periodicals in the United States in June, 1851 amounted to 2800:—thus divided.—

	No.	Circulation.	No. of Copies printed Annually.
Daily	350	750,000	235,000,000
Tri-weekly	150	75,000	11,700,000
Semi-weekly	125	80,000	8,320,000
Weekly	3,000	2,875,000	149,500,000
Semi-monthly	50	300,000	7,200,000
Monthly	100	600,000	10,800,000
Quarterly	25	20,000	80,000
	2,800	5,000,000	422,600,000

—121 papers are issued in the New England States, 876 in the Middle States, 716 in the Southern States, and 781 in the Western States. The average circulation of papers in the United States is 1783. There is one publication for every 7161 free inhabitants in the United States and territories.

Correspondence.

INSTRUCTION IN PRACTICAL DESIGN.

To the Editor of the "PEOPLE'S ILLUSTRATED JOURNAL."

SIR,—An erroneous opinion prevailing relative to the origin and establishment of "Elementary Drawing Classes," permit me, totally uninfluenced by party considerations, to state that such classes were instituted eleven years ago at the National Society's Training Establishment, then called Stanley Grove, and modified to correct the deficiencies observed in the Government system, called "Model Drawing," now apparently laid aside to make way for the introduction of "Practical Geometry and Linear Perspective," which, being introduced at the "Schools of Design," has caused a recent change of designation to "Elementary Drawing Schools."

By referring to the Minutes of Council, vol. 2, page 543, I think, it will be perceived that the Government-Inspector in his report, states that "many beautiful drawings" were submitted, but not such "object drawing" as was suited to elementary schools. And even so late as 1849, when the Inspector was presented with the published course of instructions, called "Elementary Drawing for Teachers," he remarked, in a crowded room of masters and students eagerly observing the gift, that "it was what the Government was looking for, the very thing it wanted," and said he should lay it before the Privy Council, thus proving, if another more certain way were wanting, that the inspectors were not then prepared to countenance the system.

It having been observed that the Government's exertions to instruct entirely excluded artisans, mechanics, and agricultural students, the course adopted at the above college embraced these individuals, by introducing surveying and levelling, uses of instruments, practical geometry, and linear perspective diversified of technicalities; and the "many beautiful drawings" not considered of use for elementary schools, consisted of the lessons showing the whole system, with its results upon advanced students, who produced drawings of Alt Relievi (casts from the Parthenon), surrounded their Lecture-room, drawings from several other casts, trees drawn in the grounds, various surveyed plans, coloured perspective views of chapel &c. from measurement, and an isometrical view of St. Mark's College from measured data projected upon a trigonometrical survey of the grounds.

Long ere the Government perceived the utility of these studies, the system had been introduced into many proprietary and national schools, and several whose incomes vary from 200l. to 3000l. have within the last sixteen years had sufficient opportunity of testing the course they have studied.

My view being merely to call attention to the simplicity of our system induces me to pen the following for the notice of all teachers. Upon commencing perspective, the attention of the pupils is forcibly riveted in the following manner. A vertical plate of glass upon a stand is placed in front of the class, the teacher stating that he draws with black lines upon the glass the exact appearance of the deflexion of the lines of the ceiling and floor of the room, calling their attention to the convergency of such lines, showing that, if continued, they would meet at a point (which he makes, opposite to the eye). He then proves in like simple manner, that the tendency of these lines to meet will vary according to the position chosen, by removing to the right or left, and repeat his drawing with red lines; showing the axiom "that all parallel lines converge to the same point," by drawing the lines for windows, &c.; the whole exemplified in 15 minutes, and with a few other remarks gives the whole theory of practically using parallel perspective in drawings.

Should you deem the above of interest, a further development of the simple methods of teaching will be forwarded to you, by Sir,

Your obedient Servant,

T. J. RAWLINS.

THE STOCKING WEAVERS' HALL.

CARSHALTON, July 7.

MR. EDITOR,—In the Seventh Number of the "PEOPLE'S ILLUSTRATED JOURNAL," page 108, you wish to know where the Stocking Weavers' Hall is. In a very old work on the "Incorporated Companies of the City," it is stated, Frame-work Knitters (65) or Stocking Weavers were incorporated by Charles II. in 1663. They were to be governed by a master, 2 wardens, 18 assistants, 50 liverymen, who were to pay on their admission a fine of 10l. Their Hall is in Redcross-street.

THOS. HANSELL.



PAINTED BY JACOB BECKER.

THE GIRL AND THE LAMB.

[ENGRAVED UNDER THE DIRECTION OF G. LAUDERITZ.]

A picture of the world's fresh birth!
Its budings—ere the Sun
Has warmed our summer life to fruit—
The earliest race we run!

The touch of Youth persuaded all;
First minutes of life's hours
Youth, in the early blooming Spring,
Young Girl: young Lamb: young Flow'rs!

Young Girl! coquetting with her Pet,
New breathing from its dam;
As frolicsome to day—and yet,
As gentle as the Lamb.

Fond, trusting Lambs were crown'd with flowers
For sacrifice of old;
Fond, trusting girls, in modern time,
With bridal wreaths—for gold!

Here pictured Lamb and Child are both
U're numerous of their fate;
Both young—both fond—both innocent—
And both of hearts clate!

And little Girl, and little Lamb,
Two buds from Beauty's bowers,
Are both delighted with their loves,
And glory in their flowers!

The Lamb is fair—the flowers are bright!
And beautiful to see;
But—Oh! the little Child is still
The glory of the three!

May her young heart from Life's ill en:
Quaff sweets without the sun,
And still be peaceful as the Lamb
And cheerful as the flowers!

* Published in Berlin, by C. G. Luederitz: in Paris, by Goupil, Vibert & Co.; and in London, by Ackermann & Co.

THE PEOPLE'S ILLUSTRATED JOURNAL

OF
Arts, Manufactures, Practical Science, Literature, and Social Economy.

No. XIII.

SATURDAY, JULY 24, 1852.

PRICE TWOPENCE.



BULLION OFFICE IN THE BANK OF ENGLAND.

THE BANK OF ENGLAND.

THE Bank of England, in Threadneedle-street, is the great monetary institution of the country. Like so many other establishments in England, although performing public functions, it is not under government control. The scheme for it was projected by Mr. Wm. Paterson, and in 1694, William III. granted a charter. From that time it has been in operation as the government bank, and has at length acquired



S. AMERICAN SILVER.—THE SMALLER PIECES FROM VALPARAISO.

a monopoly, now spreading over the country, of the issue of paper money in the metropolis. The whole capital, originally 1,200,000*l.*, and now 14,553,000*l.*, has been lent to the government, and is in their hands. The charter is always granted by Parliament for a short term only as a lease liable to be resumed, or given with new conditions, as the last time in 1844.

The Act 7 and 8 Vict., provides that the note issuing and banking functions of the Bank shall be divided. The Bank is allowed to issue notes, first upon the security of the government debt—that is, 14,500,000*l.*,—and further, upon any amount of bullion in its vaults; the circulation, therefore, rises and falls with the quantity of bullion in the Bank. This circulation has now fallen as low as 20,000,000*l.*, while the amount of bullion in the Bank has nearly reached 17,000,000*l.*;



BAR OF SILVER.

but the bullion has of late years fluctuated below 5,000,000*l.* The banking business of this establishment consists first of the payment of the interest on 700,000,000*l.* of the national debt, for which it is allowed a small sum, but virtually the government business is done in consideration of the monopoly of the note circulation. The offices for this purpose take up a large space in the Bank. The Bank likewise advances money to the government on Exchequer Bills, or Treasury Bills, or Bonds, in anticipation of the receipts of taxes, or to meet any sudden demands. By making advances to capitalists on stock and Exchequer Bills it keeps up the value of the public funds as a security. The Bank receives and pays money for all the public departments, and the public balance is sometimes large before the time for paying the dividends. It keeps accounts for private individuals, including all the London bankers, and the balances are large after the time for paying the dividends, as they are then transferred from the public account to the private. Its advances on securities and bills fluctuate like the balances, in various proportions of 25,000,000*l.* The amount of coin kept in the banking department is very small, as the reserve is kept in notes. On the Bank is virtually reposed the responsibility of keeping up the chief stock of bullion in the country, and this it effects by large purchases of bullion.

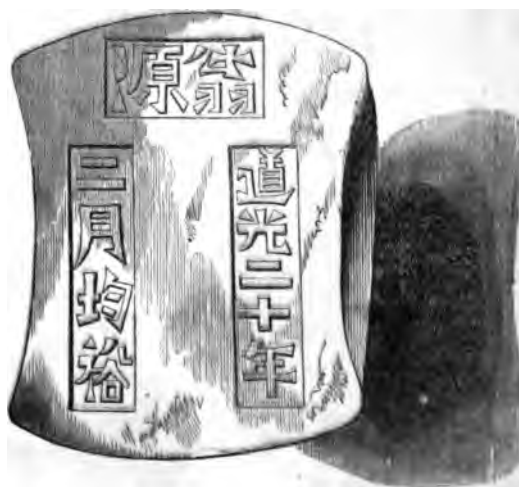
The Bullion Office of the Bank of England presents an interesting picture of the earliest mode of banking, which was simply that of making a deposit of precious metals, or coins, for security, or receiptage. Such was the character of the first public bank established in Europe

—the celebrated corporation of Venice, founded in 1157; and nearer our own time such was also the constitution of the Bank of Amsterdam, established 1609. But in none of them was the practice more strictly followed than in the bank of Hamburg, founded in 1619. There for every bar of silver of a certain fineness and weight—called the "Marc of Cologne," equivalent to 8608 troy grains—the bank gave credit on its books for 442 *lubs* banco money of account; and any person having a credit on the books of the bank might be paid in similar bars, at the rate of 414 *lubs* banco, the difference being applied



PLATA PENA SILVER.

to defray the expenses of the establishment. The business of these primitive companies consisted, in fact, of nothing more than simply receiving the property of others into custody, and keeping it hoarded till called for. The practice of *lending* as well as *taking*, which is the principle of modern banking, was not then understood; and it followed that the commercial enterprises of those times were few, and the national wealth proportionately small.



SILVER SILVER.

In the Bank of England—which is a bank of deposit, of issue, and of discount, the use of a bullion office is exclusively for the purpose of affording the merchants, captains, and traders of London, a safe place of receipt and deposit for "bullion;" and to provide a secure place for the reception of bullion, the property of the bank itself, and also for the safe delivery of it to the Mint and other places. For the conveniences afforded the public, no charge is made, except when the deposits are required to be weighed, when a trifling sum per cent. is demanded. Any person has, therefore, a right to send precious metals or foreign coins, free of expense, to the Bank of England, to be kept in his name, as long as he may require; and for whose safe custody the corporation is responsible.

With these introductory remarks we shall proceed to describe the office, the kinds of deposits most frequently made in its vaults, with such miscellaneous information on the subject as our crowded space may permit. But it will be necessary, first, to define the meaning ordinarily attached to the term *bullion*, and the sense in which we shall use it. Bullion is most commonly understood to be a generic term for uncoined gold or silver in bars, plate, or other masses; but

the Bank officers the name is used to denote the precious metals in a coined and an uncoined state, and within these limits we apply it. The word "bullion" first became popular during the dealings respecting the Bank of England from 1797, when the act of council was issued, that the Bank should discontinue the option of its notes by the payment of specie, to 1823, when payments were resumed; for, by a previous law, the Bank was obliged to pay its notes in uncoined silver or gold, according to weight or fineness. The investigations of the bullion committee,



SPANISH DOLLAR.

the various speculations on the subject of bullion, related to the value of gold and silver whether coined or not, as the basis of the circulating medium.

The Bullion Office is situated on the northern side of the Bank, in an ancient story, and formed part of the original structure erected by Sir George Sampson, in 1784. It was afterwards enlarged by Sir



MEXICAN DOLLAR.

Robert Taylor, and eventually altered to its present form by Sir John Lubbock, who, on his appointment as Bank architect, proceeded to remodel and greatly extend the entire structure. The office now consists of three spacious apartments—a public chamber for the transaction of business, a vault for the public deposits, and a vault for the private use of the Bank. The duties of the office are discharged by W. D. Lloyd, Esq., Principal; a Deputy Principal, Clerk, Assistant Clerk, and sundry stout porters. The office is, in most respects, well-conducted for the business, but its height is so great as to produce many



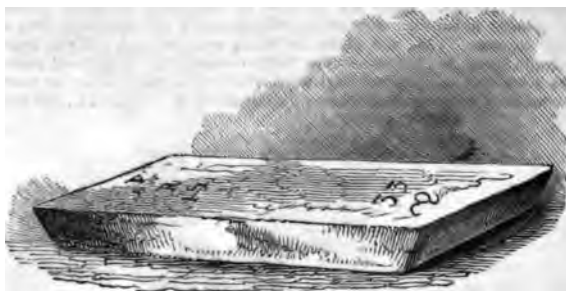
ENGLISH SILVER.

resonable echoes. The apparatus and appointments are of the best description. The public are admitted to a counter, separated from the rest of the apartments; but are, on no account, allowed to enter the bullion vaults.

The testing of bullion is performed by comparing it with certain standards of purity, established by Acts of Parliament for that purpose. There are two for each metal. For gold, the standard is 22 carats fine, 18 carats fine, in the pound troy; and for silver, 11 oz. 2 dwts. fine, 11 oz. 10 dwts. fine, in the pound troy. For testing these purities, assay offices have been appointed in various parts of the United

Kingdom, the corporations, or goldsmiths' companies of which, have jurisdiction over the manufactures of these metals in their separate districts. They now are those of London, Edinburgh, Dublin, York, Exeter, Chester, Newcastle-upon-Tyne, Birmingham, Sheffield, and Glasgow. The great importance of the process of assaying the precious metals will be understood when the great facilities which exist for their corruption are considered, but more especially when we state that in whatever state gold is found, it is mixed with a greater or less quantity of silver, with perhaps the single exception, as far as is known, of that from the Cadonga Mines, in the province of Minas Geraes, in the Brazil, and this gold is alloyed with about 1-16th part of its weight of palladium. Silver is also usually accompanied with gold, but there are some exceptions, particularly when it is extracted from lead and other of the inferior metals.

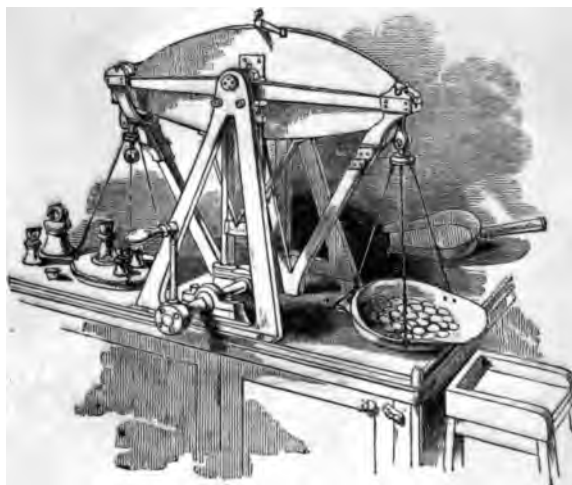
In the bullion office, where the process of weighing is performed, a number of admirably-constructed balances are brought into operation.



BAR OF GOLD.

The one which our cut exhibits, a balance, invented by Mr. Bate, for weighing dollars to amounts not exceeding 72 lbs. 2 oz. troy. All these instruments are very perfect in their action, admit of easy regulation, and are of durable construction.

The amount of bullion in the possession of the Bank of England, constitutes, along with their securities, the assets which they place against their liabilities, on account of circulation and deposits; and the differ-



BALANCE FOR DOLLARS.

ence between the several amounts is called the "Rest," or balance in favour of the Bank. The value of the Bank bullion, stated in round numbers, varies at the present time from 20,000,000*l.* upwards.

The silver deposits consist chiefly of—

1. Silver, in oblong "pigs," from South America; and occasionally, in smaller semi-globular masses, from Valparaiso—the former weighing each, on an average, 65lb.
2. Bar Silver, also from South America, but of a finer description than the preceding.
3. Plata Pena, or Rock Silver—a name given to silver when it is not consolidated, or completely in a metallic state, of which the following account of a process of extraction may serve to give some explanation. The ores of silver obtained from argentiferous rocks are, in one of the modes by which they are reduced, first of all finely pulverised, and, after undergoing much washing, to free them from the earthy particles, and, generally, after other processes also, to disengage the alloy, they are mixed with a quantity of quicksilver, sufficient to form a liquid amalgam of this metal with the silver. This being run off, it is put into leather bags, and being squeezed, part of the mercury comes through, leaving the rest of it with the silver in a state which may be termed metallic paste. This is afterwards subjected to a kind of distillation at a low red heat; and the chief part of the mercury being thus sublimed, the silver is left in a state of pure parity, but in appearance more like pumice-stone than of a perfectly-formed metal. It is this which is called Plata Pena (a cone of silver); and as, from its spongy texture, it is capable of imbibing much moisture, even from the atmosphere, it requires to be well heated before its proper weight can

be ascertained; and to be still more heated before it is melted, in order to expel any remaining mercury; as, otherwise, portions of it would be liable to spurt out of the crucible. To show the extent to which the absorption of water, by Plata Pena, takes place, we may mention that in a trial made by Mr. Haggard on a mass, 87 lb. weight, a loss of 29 lb. accrued from thoroughly drying it.

4. Sycee Silver. With this, as in the specie used by his Celestial Majesty in the payment of the Chinese ransom, the public have become, in name, at least, familiar. Sycee is the colloquial pronunciation of the phrase Se-see, which strictly means "fine silk," but which is also used to mean "pure silver," intimating that it may be drawn out as fine as silk. The proper Chinese term for it is Wan-yin, and the average quality of this silver is, "98 touch, 980 fine," or a little above 13 dwts. better than British standard. It contains gold, amounting, on an average, to about 12 or 13 grains in the pound troy. The ingots or shoes of this silver are stamped, as shown in the engraving, with the name (top-line) of the assayer, "Ung-un;" the name and reign of the emperor (right col.) "Tou Kwang, 20th year, 2nd month;" and the words (left col.) "assayed and cast"—the latter term signifying that in quality the silver cast was of the legal fineness.

5. Spanish Dollars. These are brought to the Bank in great quantities, packed, usually, in barrels; they are afterwards sorted into parcels of 1000 each, weighing together 21 lb., and placed in strong canvass bags. These bags are then piled in stacks of 200 each in the bullion vaults; the bags being placed in fourteen rows, each one fourteen bags wide, with four at top to make the number. The one we have engraved is known as a pillar dollar of Charles IV., the arms of

Castile and Leon on the obverse, having two pillars for supporters. Others, without pillars, are called shield dollars, or "shields."

6. Mexican, or Eagle Dollars.

Besides these, Brazilian, Peruvian, Bolivian, and North American dollars are occasionally received or purchased to a large amount. In dealing in them, great care has to be observed to escape loss by forgery. Many of them are drilled and plugged with spurious metal; and others are made of a compact pewter body, cased with silver leaf, struck from the surfaces of genuine coin, which they accordingly resemble in the nicest degree. Dollars bought by the Bank are generally sent to be melted at the beautiful refining establishment of Brown and Wingrove, Wood-street, Cheapside. Sycee silver has always been sent to the Mint. The separate letters and numerals in the legends of the dollars are the Mint and valuation symbols.

Native silver. This is now procured in several of the northern counties; but the chief supply comes from the lead mines of Northumberland. The lumps in which it is sold, one of which our cut represents, ordinarily weigh 2 cwt. each. The quantity of silver annually found in England would furnish sufficient material for the manufacture of all the plate made in London within the same period.

Gold, previous to the recent discoveries in California and Australia, was almost exclusively obtained by the Bank in the "bar" form; although, of course, as form of the precious deposit would be refused. A bar of gold is a small slab, weighing sixteen pounds, and worth about 800l. In the foreground of our large cut a truck is shown, laden with a consignment of gold bars. The other trucks in the same engraving bear loads of dollars.



SCULPTURE.—THE LAST DROP. BY W. C. MARSHALL.

This spirited little affair tells its own story. It seems to be admirably suited for reproduction in bronze, or other ornamental metal.

ON THE STUDY OF ART.

THERE is but one school of art—Nature. But to read her volume profitably, artists must study profoundly the antique Greek, and ancient Italian school, formed by the era of Leonardo, Angelo, and Raphael.

It may precede, or follow, or coincide with the study of the living figure; still these immortal works must be your guide; for, whether it be composition or colouring or design, you are likely to find that these masters read Nature more clearly than you ever can. But do not copy nor imitate them further than as objects of study.

Learn anatomy by all means; but do not forget its object. When you draw a dissected limb, be sure to sketch the living one beside it, that you may at once contrast them, and note the differences. In drawing from the nude figure, contrast your sketch with the antique; you will find in it many defects. Never forget that perfection, the result of a high specialisation of Nature's law of individuality, is rare; the opposite, that is, imperfection, the result of a tendency to unity of organisation, is by far the more common.—(From a work recently published, entitled "Great Artists, and Great Anatomists," by R. Knox, M.D.)

WOOD THOUGHTS.

BY HENRY SPICER.

DREAMING in the Nassau forests,
As the noon crept by;
All that moved—the brown wood-linnets,
Gnats, and ants, and I;
All that spake—such sudden murmurs
As, from sylvan ground,
Wake, and whisper, and then perish,
Liker thought than sound—

CAME a sense of soft inviting,
Such as lifts the eyes
Of the world's forgotten children
In a glad surprise.
"Listen, dwellers in dank hedges!
Listen, city's poor!
Listen, toll-sick, wan mechanic,
Pauper, serf, and boor!"

"GREASY-hatted, out at elbows,
All that cannot win
Access to a prince's pictures;
Here are mine—come in!
Nature guards this portal, never
Shut to miry shoes;
Show your heart, 'tis written "Peaceful;"
Pass where'er you choose!"

"TAKE the moss-throne she provides you;
Lift her inmost screens;
Dint her sacred carpets—richer,
Softer than a queen's.
You, whom lords have too much honour'd
With a saucy nod;
Stand, in His august creations,
Face to face with God!"

"LEAving them, take this memorial
Of one happy day;
He that rules, from giant forest
Down to tiny May,
Breathes a welcome full as gracious,
Through these tongueless things,
To your homely, rude assemblage,
As to troops of kings!"

"SEEs, perhaps, in those poor faces,
Bright with curious joy,
Something of man's first expression,
Love without alloy.
Something, too, of that high future
That still toward us rolls,
Bringing woods whose trees are temples,
And whose flowers, white souls."

THE BRITISH MUSEUM.—THE ELGIN ROOM.

ON the present page we give representations of three very interesting specimens, which were added to the collection in the Elgin Room a few years ago. They are portions of a series of casts from moulds made at Athens under the late King of the French. The first is a female head, supposed to have belonged to one of the pediments of the Parthenon; although, on the other hand, there are doubts as to this being the case, the size being considered too large (the face being 10 inches long) for any of the Elgin Collection, except, perhaps, the fragment of Minerva. The back and one side of the head are cut off, exhibiting the marks of the chisel most plainly, apparently to admit the head to some limited space; or, in case it should prove to be the head of Minerva, this provision might have been made for affixing the bronze helmet. The head is very dignified and full of expression; and so masterly in execution as to leave no doubt as to its being referable to the palmiest days of Greek art.

Nos. 2 and 3 are casts from figures of Victory, in the Temple of Victory, in the Acropolis. They are majestic in character; somewhat similar to that of the Fates, and other female groups of ideal personations. The drapery is inimitable for the freeness of the folds, and the lightness, yet sharpness, of their treatment.

A few observations upon the general structure of Greek temples may not

be out of place. The Greeks are supposed by some to have borrowed the idea and form of their temples from the Egyptians; but Mr. Wilkins thinks the temples of Greece show so great a similarity in the distribution and proportion of their parts, as to warrant the conclusion that they were studiously copied from some one great model, which model he conceives to have been the second temple of Jerusalem.

"The plan of the generality of the temples of Greece and her colonies was that of a simple parallelogram. In some of the smaller structures a row of columns was placed only in front; but in most cases there was a row both in front and rear; and the superior temples were surrounded by one or even two ranges of columns, resting on a base composed of several steps. The roofs of these temples were usually formed in two inclined planes, extending from front to rear, meeting in a ridge over the middle, and forming a triangular pediment or gable end at each extremity. Above the walls, at the angles of the building, were generally placed acroteria or pedestals, which rose through the roof to about the level of the centre of the tympanum. These were intended to bear statues or vases. The porch or portico in the front of the temple was called pronaos, that in the rear, the posticum."



NO. 1.—PARTHENON MARBLE.



NO. 2.—VICTORY.



NO. 3.—VICTORY.

RECREATIONS IN GEOLOGY.

NO. IV.—VEGETABLE RECORDS OF THE PAST.

Is the tablets of stone lie the footprints of Time,
And the pictures of years gone by;
And the work of the bleakest and sunniest clime
Is to chronicle Nature's history.
In the leaf and the bud and the midnight shower,
Are written the records of old;
There inscribed are the pulses of passion and power
Forgotten ages behold.

"NATURE will be reported," says Emerson. "All things are engaged in writing their history. The planet, the pebble, goes attended by its shadow. The rolling rock leaves its scratches on the mountain; the river, its channel in the soil; the animal, its bones in the stratum; the fern and leaf, their modest epitaph in the coal. The falling drop makes its sculpture in the sand or the stone. Not a foot steps into the snow, or along the ground, but prints in characters, more or less lasting, a map of its march. Every act of the man inscribes itself in the memories of his fellows, and in his own manners and face. The air is full of sounds, the sky of tokens; the ground is all memoranda and signatures; and every object covered over with hints, which speak to the intelligent." This master of philosophy knows the import of a footprint in the sand;—the value of vegetable records of the past.

In geological history animals appear to precede plants, and several animal races appear to have lived and died previous to the creation of the first vegetables. This is somewhat of a paradox. The order of nature seems to involve a steady progress of the particles of matter from the mineral to the vegetable, and thence to the animal kingdom: while in the latter the same materials are elaborated again by the carnivorous tribes, which were previously obtained from the plant by the vegetable-eating creatures: and thus passed into still higher forms. Though the idea appears never before to have been broached, there appear to us strong reasons for regarding the sources of animal and vegetable nutriment as indices to the relative exaltation of animals and plants in their respective circles of creation. Thus, we should regard those plants which subsist on the purely unorganised particles of matter, as the lowest in the vegetable kingdom, while those which require for their sustenance materials which have been already passed through the organism of other plants, we should place above the first. In this order the mosses and fungi would take their present place at the bottom of the scale; but pushing the same law of gradation into the animal kingdom, the carnivorous tribes would stand higher than the herbivorous, because instead of subsisting on matter in its first form of vegetable organisation, they require it elaborated into animal nature for their use. Looking at the apparent appearance of molluscs and annelides in the era of the mica schist, previous to the creation of any, even the humblest, vegetable forms, we are driven to one of two conclusions, namely, either that these low types of animal existence were capable of subsisting on nutriment derived immediately from the mineral kingdom, or that the vegetable creations, which have afforded them food, have wholly perished, leaving behind them no records or remnants of their history. In the present day, we have no instance of animal life supported by matter in a state of absolute disorganisation, every creature seeking its nutriment in dead or living vegetable or animal matter; and all the analogies of the case lead back to the same conclusion in regard to the first zoophyta, mollusca, and annelida. It is reasonable, therefore, to conclude that the first few pages of the vegetable history of creation have perished, and that the plants which formed the sustenance of the first animal tribes, have, from their peculiar nature, been entirely resolved into their primitive elements, and in this way removed from the memorials of the first fossil rocks. What vestiges of vegetable growths remain in later strata, however, afford a series of pictures and stories of the past equally striking, romantic, and poetically suggestive.

Finding no traces of vegetation in the deposits of the gneiss, we go higher and search in the silurian beds and discover many. With humble animals are humble plants, and wedded to the scanty elements of animal life are a series of most humble plants suited in their economy to the most rude conditions of existence. Here are the first traces of green things, the earliest records of the land of flowers. The first are humble sea weeds or algae of four species, which seem to have flourished in the warm seas, and provided the finny tribes with their mucous nourishment. These, with the equisetaceæ, with a few ferns and lichens, seem to have composed the entire flora of this epoch. The philosophy of their growth beautifully illustrates the provisions of nature for ulterior ends. The sea eternally beating against their flanks, the granite hills would wash down particles continually to form new beds of rock at the bottom of its waters, and the fresh mountain streams purling and splashing down the craggy heights would cut thousands of fine particles away, and form, in the hollow basin and crevices, through which it passed, little beds of comminuted soil. This soil would be sufficient to sustain some of the lowest vegetable productions, and ferns, horsetails and lichens, would find root there. The accumulation of soil by the decay of these plants would lay the basis of a higher fertility; and the plants themselves, by a most strange provision, would destroy the rock in which they grew, and add still more energetically to the accumulation of beds of mould. Many rock plants have the faculty of secreting during growth a considerable quantity of an active acid; and

in the case of mosses and lichens the acid produced is that known as oxalic acid. This, acting on the rock around the roots of the plant, causes it to crumble and decay rapidly, and the constant absorption of moisture by the plant and the progress of its own decay, constitute a series of powerful but silent agencies for the destruction of the most solid and impregnable ramparts. This destruction of the hardest adamant under the frail and flexible tooth of a poor weak moss, is like that melting of the stony heart which sometimes happens under the influence of an infant's tear.

All plants are composed of two kinds of matter; namely, cellular tissue, which may be compared to the flesh of animals; and vascular tissue, which consists of spiral vessels and ducts, which may be compared to nerves and veins. If the leaf of a hyacinth be gently broken, and the parts carefully drawn asunder, the spiral vessels will be seen distinctly with the naked eye. These vessels are much more conspicuous than others; and in some plants they are entirely wanting. Those plants, however, in which these spiral vessels are not found occupy the most inferior rank in nature, and of this inferior type are most of the early plants of the silurian slates and sandstones. In this humble conferva we see a series of cells, elaborated one upon the other, with no trace of spiral vessels, and with none of the attributes of a high vegetation. It is said that spiral vessels have been found in the ferns, yet these are low in the vegetable scale, and composed chiefly of the repeated hexagonal or globular cell. Cells are formed in many plants with extraordinary rapidity. The *Bovista giganteum*, a species of fungus, wholly composed of cellular tissue, has been known to acquire the size of a gourd in one night; and supposing each cell to be 1.12000th of an inch in diameter, they must be developed at the rate of 66,000,000 in a minute. It is common, however, for them to be produced at the rate of 5000 in an hour. Of the ferns it may be said that they are the most curious productions of the vegetable kingdom. In association with the plants just enumerated, they are included in the division of cryptogamous plants, or those producing no visible flowers. They may be said to have neither stems nor leaves, neither flowers nor seeds. The different parts of the plant spring from a rhizome or root stock, and the fronds, which are distinct from true leaves, have their veins neither branched nor in parallel lines, but forked. On the back of the leaves are some curious brown spots, of various shapes, called sori; and these, which are generally produced on the back of the frond, contain the small grains which constitute the sporules or seeds; and which are distinct in character from the seeds of all flowering plants. The mystery which hung about the ferns caused them in old time to be surrounded with superstitious emblems, and the possessor of fern seed was believed to be capable of invisibility. There is a poetic charm in these old legends, but the charm is infinitely more potent wherein we see in these mysterious productions of an age of earthquakes and great floods, the first step of the vegetable kingdom towards its present exuberance and greenness and fruition.

In the old red sandstone the remains of vegetables are numerous, but they seem to be broken as if drifted by powerful currents. Here we meet with the same hints which the progress of the animal afforded, and higher forms of plant life break into the scene. Though vague and scattered, it is easy to discern the traces of sea-plants of an advanced kind, and particularly such plants as those which the sea casts upon our modern shores, some of which resemble short stems branching out into a scourge of cords; others long, jagged, straps of leathery seaweed, and amongst them leaf-like impressions like the narrow parallel-edged leaves of the seagrass weed, and occasionally true branched stems of vascular plants, some of them gnarled and twisted like miniature oaks.

Previous to the carboniferous era, however, vegetation had only made a few experiments, and finding a successive development of the conditions necessary for its growth, broke into new and glorious vigour with the deposit of these sandstone and limestone rocks, which take their title of "carboniferous," from their profusion of vegetable remains. In this age the climate over the whole earth was that of a glowing and perpetual summer. Swamps alternated with fertile plains, and all the elements of a tropical vegetation existed in extraordinary exuberance. This was the era of the coal measures when those vast deposits of fuel were laid down which now constitute the secret of our national wealth, and form the foundation of the mechanical achievements of this age of iron.

The ferns occupy the most important place in the flora of the coal measures; as many as one hundred and twenty distinct species having been found in a fossil state. M. Goepfert has obtained specimens as perfect as when imbedded, the only change which they have undergone being that of colour, while some still retained their flexibility. The coal mines in some districts are literally inlaid with the graceful tracery of these elegant plants, the most delicate parts still maintaining their perfection, and covering the roofs and galleries with gorgeous festoons of the most graceful foliage. "The spectator," says Dr. Buckland, "feels himself transported, as if by enchantment, into the forests of another world; he beholds trees of forms and characters now unknown upon the surface of the earth, presented to his senses almost in the beauty and vigour of their primeval life; their scaly stems and bending branches, with their delicate apparatus of foliage, are all spread before him; little impaired by the lapse of countless ages, and bearing faithful records of extinct systems of vegetation, which began and terminated in times of which these relics are the infallible records."

The ferns of the coal measures were not such slender and fairy-like

plants as now abound in the hedgerows and woods of Britain, but gigantic trees, similar in form to the arborescent ferns of the tropics, though far mightier in their dimensions. Several have been named after the mode in which the leaves are produced and arranged, and but few stems are ever found. Allied to the ferns, and forming the intermediate link between the ferns and the true mosses, was a tribe of plants of from forty to sixty feet in height, and averaging fifteen feet in diameter, called *lepidodendra*. These correspond to our *lycopodium*, or club mosses, none of which in the present day attain a greater height than three feet. In the same company occur the *stigmaries*, which are easily recognised by their spotted stems, and by the short horizontal lanceolate leaves which spring from their stems like the whorled wires of a bottle-brush, from the root to the summit; the spots marking where these leaves have fallen off. These *stigmaries* grew in the deep mud of the marshes, and with them were tall *calamites*, stiff and hirsute, surrounded with narrow leaves springing from the knots of the trunk. The latter are supposed to have been allied to the existing *equisetaceæ*; though these are graceful, weak-stemmed plants, bearing no outward resemblance to the arrowy outlines of the *calamites*, which shot up to a height of from thirty to forty feet, with a thickness of only two or three feet in the stem.

The plants of the carboniferous era, which stand in the highest rank in the vegetable empire, are the *sigillaries*, the *conifere*, and the *palms*; the first being true trees, whose seeds have two lobes each, the stem marked with longitudinal flutings, in a similar manner to some living dicotyledonous trees of New Zealand. The *conifere* are the highest and, perhaps, the latest of the productions of this era; they are cone-bearing trees, allied to the fir, larch, and Norfolk Island pine. A complete stem of the last-named tree was found in Crayleith Quarry, near Edinburgh, in 1833, in strata belonging to the coal-field of Mid Lothian. It was forty-seven feet long, the greatest diameter being five feet, the smallest nineteen inches. It was found lying under 136 feet of strata, in an inclined position; the bark was converted into coal, but internally the woody texture of the tree was well preserved.

The luxuriance of this strange vegetation seems to have been augmented by an excess of carbonic acid in the atmosphere; by a constantly prevailing high temperature, rendering the climate of Britain hotter than the tropics in the present day, and by a swampy condition of the soil—elements which stimulate in an extraordinary manner the vital forces of the vegetable, though fearfully destructive to animal life. Indescribably beautiful must those scenes have been. The low swamps were filled with huge club mosses, most of them, doubtless, of a rich sombre green, towering up in thick groves and dense jungles to a height of forty feet, forming extensive districts of matted verdure, the branches interlacing like a rough net-work, and shutting out every ray of sunlight from the wet steaming swamp at their feet. This scene was varied with the occasional sprinkling of the *stigmaries*, sending their tall, waving, and spotted stems to a height of twenty feet, fringed from head to foot with short lateral leaves, the light quivering of which formed a striking contrast to the stately waving of the giant mosses, which formed a heavy background to their slender outlines. The borders of the waters were fringed with *calamites* rising as high as the *lepidodendra*, but with tall slender stems leafed round like the stems of gigantic lilies, each fresh whorl of leaves springing from the joints which divided the stem in a manner similar to that of the bamboo. The surrounding plains and rocky heights and hollows were converted into seas of greenness by the tall waving ferns, constituting a luxuriant growth of intertropical exuberance, and flanked by the red stems of tall pine trees, which climbed into the crevices of the mountain crags, or kissed the rain-cloud from their mossy summits. From an elevated spot, the scene which presented itself was that of a boundless sea of billowy verdure; replete with wondrous forms of vegetable life, but with no hum of insect, no song of bird, no prattle of children. The rattling of the fir cones, and the rustling of the feathery fronds of the ferns and palms, with the occasional sigh of the forest breeze, sweeping on its march of glory, were the only sounds which broke the intense stillness of those leafy solitudes. The Christmas laughter round the coal-fire, as the black blocks hiss and spurt in the flames, forms a strange contrast with the death-like silence under which the plants flourished while the blazing coal was formed.

Respecting the origin of coal, there is no difference of opinion among naturalists. The abundant vegetable remains of a distinct character associated with it, and the microscopic character of the coal itself, equally testify of its vegetable parentage. Of the mode in which the coal-seams have been laid down, however, there are two prominent and distinct hypotheses. Brongniart, Deluc, and Mr. Hutton of Newcastle, have been advocates of the theory which sets forth its deposition in the place of its growth, the plants living and dying where the coal exists, while many geologists maintain that the vegetable matter was swept from the land into estuaries or lakes by inundations and streams, as the trunks and branches of trees are now carried down by the Mississippi and St. Lawrence, and deposited at the embouchures of those rivers.

The difficulties of the second theory are so numerous, that in the present paper we feel compelled to draw our illustrations of the formation of coal from the first; a minute examination of the respective doctrines involving a more lengthy discussion than our present space admits. It may be stated in passing, that the coal-seams are usually so distinct from the intervening seams of shale and limestone, that to attribute their deposit to flowing streams involves the necessity of con-

sidering that currents bearing wood, sand, clay, and lime, had the faculty of separating those substances from each other, and depositing them separately, one at a time; a conclusion which for the present we may regard as forced and unnatural. Adopting the theory of its deposition in the place of growth, coal is analogous in its origin to modern peat, and each bed was doubtless formed on marshy land, covered with a rank vegetation. About three hundred species of plants have been found in the sandstone and shale of the coal-measures; and the greater part of these probably exist in the coal itself, though the tenderness and opaqueness of the material render it difficult to detect them by examination. Dr. Hutton thought that the plants had been carbonised by heat, but Dr. Macculloch has shown that the change may be effected by water and pressure, and that by these agents peat is convertible into coal. Admitting that it was grown on the soil above which it was deposited, as the many upright stems rooted in sandstone and shale seem to testify, we have before us data for ascertaining the length of the periods required for the formation of our beds of coal. According to Mr. Maclaren, in his "Geology of Fife," wood affords about 20 per cent., and coal about 80 per cent. of charcoal. It will require, therefore, about four tons of wood to yield the charcoal in one ton of coal. If we suppose the forest to be filled with trees 80 feet high, and the trunk of each tree to contain 80 cubic feet, and the branches 40, the weight of such a tree will be $2\frac{1}{2}$ tons; and allowing 130 trees to an acre, we have 300 tons on that space. Supposing the portion that falls annually, leaves and wood, to be equal to one-thirtieth, we have 10 tons of wood annually from one acre, which yields 2 tons of charcoal, equivalent to $2\frac{1}{2}$ tons of coal. Now, a cubic yard of coal weighs almost exactly one ton, and a bed of coal, one acre in extent and three feet thick, will contain 4840 tons. It follows, therefore, that one acre of coal is equal to the produce of 1940 acres (that is, 4840 divided by $2\frac{1}{2}$) of forest; or if the wood all grew on the spot where its remains are found, the bed three feet thick, and one acre in extent, must be the growth of 1940 years. In order to be within the truth, suppose we consider the vegetation to have been twice as rapid as this estimate, then to deposit the 48 feet of coal in the Newcastle district at the rate of 823 years per foot, will have required 15,504 years, or for the 108 feet in the Mid-Lothian field a period of 34,884 years. When we reflect that the coal constitutes only one-thirtieth of the entire series of beds comprehended in the group, we have reason to accept, as by no means extravagant, Dr. Macculloch's estimate of 600,000 years for the production of the whole mass. Nature cared for us in those long ages of silence and slow change, and the fruits of countless centuries of labour now yield to the daily necessities of a civilisation, which owes its main impetus and rapid growth to those stores of coal, and while it embraces a whole world in its arms, points to eternity for its consummation.

Leaving the coal series, and traversing upwards to the new red sandstone, we see vegetation advancing towards its present condition. The gypseous marls and sandstones of the upper beds of this series abound in the remains of *Cycadeæ* and *Conifere*, and many other terrestrial plants which approach in character to the existing vegetation. The chalky soil, rising in island patches, or swelling into round hills and shrubby knolls, was covered with magnificent forests; and the eminences crowned by tall majestic pines. The trees of the order *Cycadeæ* are closely allied to the yew in their external configuration; though it is still a doubtful point with botanists whether they should be ranked with the true exogenous trees or the endogenous plants which grow in the manner of the palm. They bear cones like the pines and firs; but in their leaves and the manner in which they unroll themselves, they resemble the ferns; and in the outside of their stems, the palms; while from the wood being in concentric circles, they must be classed among the exogens, or those which form their wood from *without*, in the manner of the oak and the majority of trees, instead of those which form it from *within*, as the grasses and the palms. Pines and firs of many species flourished in these woods; realising scenes of forest grandeur which recall the lines of Milton:—

Over head up grew
Insuperable height of loftiest shade;
Cedar, and pine, and fir, and branching palm,
A sylvan scene; and as the ranks ascend
Shade above shade, a woody theatre
Of stateliest view.

The succeeding wealden strata contain many petrified trunks of palms, tree ferns, and gigantic reeds. The age of floods which followed, and which we have already referred to as a period during which animal life stood still, was one equally barren in vegetation. Aquatic plants and grasses seem to have composed the flora of this period, and Nature, dormant for a season, was preparing for a great renewal. Two great groups of land plants had passed away; the vegetation of the carboniferous and new red sandstone eras had perished with the huge reptiles and gigantic birds, and as the dawn of the tertiary age arrived, a new race of plants sprang into being coincident with the birth of a new order of animals. Fragments of lignite or fossil wood are common in this system, forming beds of imperfect coal; and in connection with these peaty formations numerous specimens of amber occur, marking the submergence of woods and forests, the amber being unquestionably a mineral resulting from the gum resins which exuded from the trees. These specimens of amber frequently contain insects, which being entangled in the viscid exudations, have been entombed in their full perfection, and converted, with the gum surrounding them, into true fossils.

The plants of the tertiary formation exhibit vegetable nature in its last phase of completion. Here are relics of plants allied to the cucumber, beans, cypress, and laburnum; the fruits of palms and the spices of the East; the latter abundant in the formations of this country, suggesting pictures of the time when the elevated parts of England formed a number of spice islands, enjoying equatorial warmth, and sending forth delicious odours to sweeten the warm breath of the breeze, and render fragrant each splash of the waves. This was the age of great creatures, when the mastodon and the dinotherium shook the forest with their footsteps, and browsed upon the gigantic vegetation of the marshes. As animal life increased in number and variety and magnitude, and the age of drift and erratic blocks arrived, the trees of the present day shot forth and the thousands of modern plants which form the dense jungle and the fruity thicket, congregating in deep forests of leafy darkness, or sprinkling the green savannahs with woody clumps and knolls.

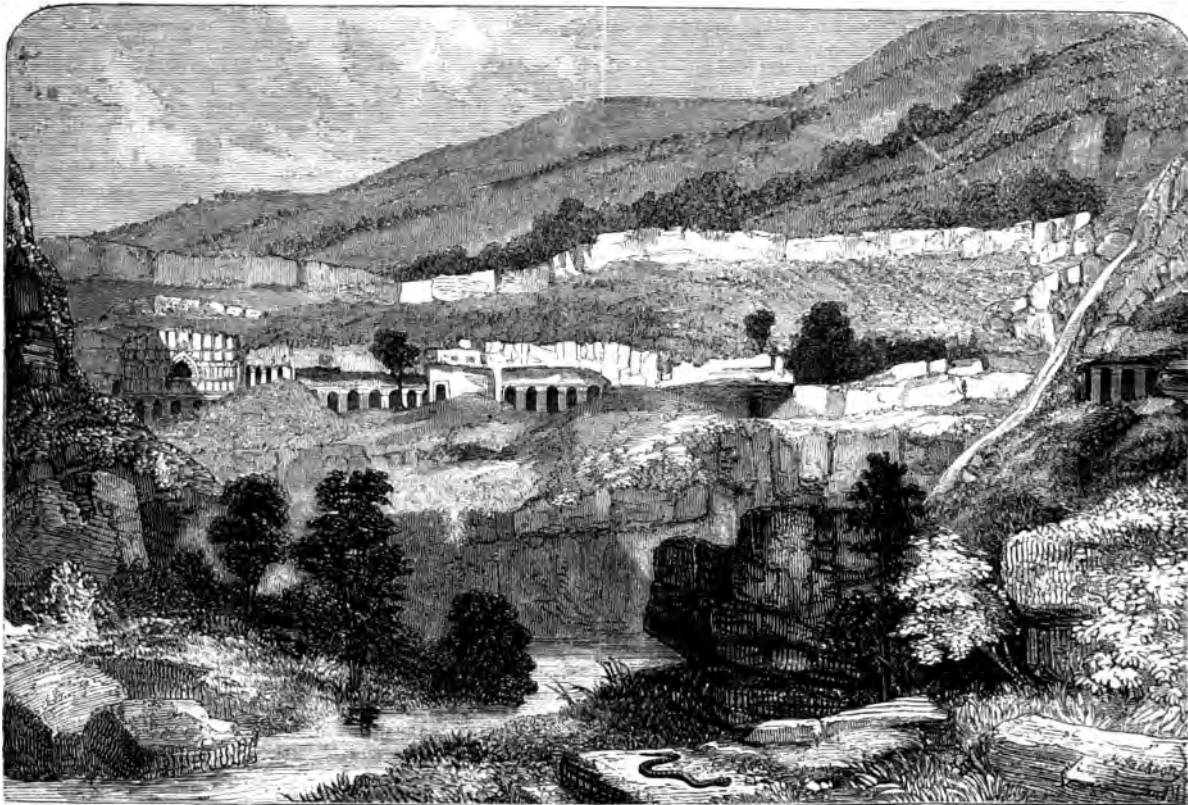
INDIAN ANTIQUITIES.—PAINTINGS IN THE AJUNTA CAVES.

(IN THE MUSEUM OF THE EAST INDIA HOUSE.)

THERE have lately been added to the Museum of the East India Company some interesting copies of paintings found upon the interior walls and roofs of a series of temples, excavated out of the solid

rock, situated near the Ajunta Pass, where the road from Central Hindostan ascends the mural heights supporting the table-land of the Dekkan. The town of Ajunta is about 200 miles north-east from Bombay; and in a ravine amongst the hills, some four or five miles distant, occur the caves. According to Mr. Fergusson, in his "Memoir on the Rock-cut Temples of India," published in the "Journal of the Royal Asiatic Society," the entrance to the ravine is nearly half a mile in width, but the ravine becomes narrower as the traveller winds up it, until it terminates in a cascade of seven falls, or leaps: the lowest is about 100 feet high, the others about 100 feet higher. Immediately below the fall the ravine makes a sharp turn to the right, and it is in the perpendicular cliff forming the outer side of the bend, and facing the fall, that the caves are situated; the whole series extending about 500 yards from north to south-east. There are in this space twenty-seven caves, which are accessible by a sort of ledge or terrace of the cliff; but this has given way at the southern extremity, and left the face of the cliff perpendicular, to the height of about 300 feet. The general appearance of the ravine and of some of the excavations is given in our Engraving No. 1, reduced from the original plate, forming part of Mr. Fergusson's interesting illustrations of these and other Rock Temples delineated by him in India.

The Ajunta Caves are richly decorated with sculptured porticoes and columns; but their peculiar feature is the embellishment of their roofs and walls with paintings, which it is not yet determined to call frescoes. They have suffered much from time and neglect; and to counteract, in some measure, the further depredations of both, the Court of Directors



NO. 1.—GENERAL VIEW OF THE AJUNTA CAVES.

have instructed their local governments to take measures for their careful delineation. An officer of the Madras Establishment, Captain Gill, has been for some time, and is still, employed in making copies of them, and has sent home those now at the India House: of three of which we present our readers with engravings. In No. 2 we have on the left a number of warriors apparently setting out on an expedition. The chief, indicated by the umbrella, is taking leave of his princess, whilst a group of women on the right are also bidding them farewell. The men are characterised by the intertwining of the hair with the cloth of the turban, a costume now chiefly met with amongst the Burmas. It is doubtful if it is to be found on the continent of India. There is nothing to denote the religion of the persons represented, but in another painting a group very similar are offering their adoration to a Chaitya or Buddhist monument, which is conclusive as to their professing the Buddhist faith.

In No. 3 we have various groups, who belong to the interior of the palace. The chief in one place is seated, in another standing, and in both attitudes is evidently communicating orders or instructions. This is probably a representation of Sakyasinha or Buddha, who admitted females to become his disciples, and was allowed free access to the female apartments. The privilege here is not confined to him, for in two places are men bringing presents carried upon a pole, with slings, as they are

at the present day. In the right-hand corner we have what seems to be a garden; in the left a group of elephants very accurately represented—one appears to have triple tusks; a seated female in front appears to hold a book.

No. 4 represents a very different series of figures from either of the two preceding, and evidently belongs to the Siva branch of Brahminism. The much defaced head in the centre, with a rich crown, ornamented amongst other things with crosses, is a not uncommon representation of Siva; and in the right compartment we have the same divinity attended by some of his hideous train of goblins. In one place, on the left, of two smaller figures the male is playing a flute. The figures appear to be partly in the clouds, partly in edifices and gardens—perhaps the city of the God of Wealth upon the celestial mountain Kailas is intended.

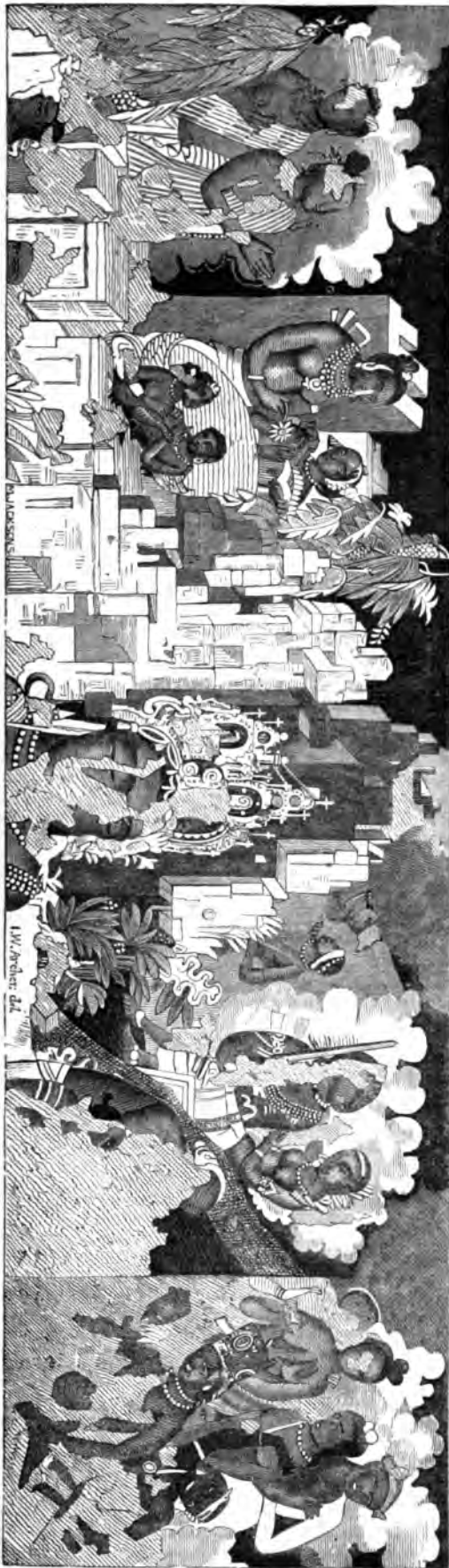
The indications of Buddhism are, however, the prevailing subjects of the paintings, although some of them are Siva. Fragments of inscriptions are found on two of them, which, although too imperfect to be capable of translation, yet are valuable as guides to the age of the paintings. The characters in which they are written went out of use about the third century of our era, and the paintings in which they occur, must, consequently, be of prior date. They were painted, probably, about the beginning of the Christian era.



No. 2.—INDIAN WARRIORS SETTING OUT ON AN EXPEDITION.



No. 3.—INTERIOR OF AN INDIAN PALACE.



No. 4.—SIVA FIGURES.

NIEBUHR.—HIS LIFE AND WORKS.*

AMONG recent publications, one of the most interesting and noteworthy, is the *Life and Correspondence of the Roman historian, Niebuhr*. As we think it likely that many of our readers will be glad to learn a few of the facts of his outward history, and of his laborious efforts at self-culture, we propose to sketch an outline of the biography; incorporating such passages from the letters as can be conveniently wrought into the delineation. Much that is instructive and characteristic must necessarily be omitted; but yet, in a brief and cursory manner, we may convey some general notion, both of the man and his pursuits.

Niebuhr's father, Carsten Niebuhr, was a man of some distinction as an oriental traveller. He had been sent out by the Danish Government, with four others, in 1760, upon an expedition of discovery in Turkey and Arabia, and returned alone after an absence of six years; all his companions having sunk, in the course of the first twelvemonth, under the difficulties of the journey. After preparing his papers for publication, he was on the point of proceeding into the interior of Africa, when it chanced that he fell in love with a young orphan lady, and, abandoning his purpose, married her, and settled at Copenhagen. In this city, Barthold George Niebuhr was born, on the 27th of August, 1776. Two years later, his father, who held the rank of lieutenant of engineers, obtained his discharge from the military service, and entered upon the appointment of *Landschreiber*, or secretary, to the province of South Ditmarsh in Holstein. Here, in Meldorf, "a little antiquated country town," the boy passed the principal years of his childhood; leading, upon the whole, a pleasant and cheerful life, learning various matters in the way of useful and entertaining knowledge, and romping about with his sister, and a few select playfellows, in the spacious court-yards and gardens adjoining his father's house.

There are stories told of young Barthold's extraordinary aptitude for study, and, above all things, of his exceeding retentiveness of memory. Writing to a friend, when the boy was only six years old, his father said:—"He studied the Greek alphabet only for a single day, and had no further trouble with it; he did it with very little help from me. The boy gets on wonderfully." In history, geography, modern languages, and, indeed, in all the ordinary branches of study, with the exception of mathematics, his progress was equally rapid and remarkable. His principal teacher, for some years, was his father; but in his eighth or ninth year, he regularly received lessons in the classics, from one of the masters of the Meldorf Gymnasium. Before he was eleven years old, he began to be interested in German literature, and to pay much attention to the progress of political affairs. From a still earlier age, he was in the habit of writing essays on most of the subjects that had come before him in the course of reading, or during the conversations which he listened to between his father and the literary friends who were accustomed to frequent the house. When the Turkish war broke out in 1787, it made a profound impression on him: "he not only talked of it in his sleep at night, but fancied himself reading the newspapers, and repeating the intelligence they contained about the war; and his ideas on these subjects were so well arranged, and founded on so accurate a knowledge of the country and the situation of the towns, that the realisation of his nightly anticipations generally appeared in the journals a short time afterwards." His biographer remarks that, "this is not to be regarded as indicating a miraculous gift of prophecy in the boy, but only as showing with what distinctness all that he heard transferred itself to his imagination, and how capable his understanding was of combining the ideas he had received in their true relation to each other. Partly through his father's narrative, partly through his own geographical studies, those regions were as familiar to him as his native province. He had studied the nations inhabiting them, and their mode of warfare in history, and the accounts of travellers; and had taken great pains to gain accurate conceptions of the character and conduct of the various commanders in the war, from the journals and other sources of information." We are further informed, that there are some letters still extant, containing the grounds and proofs of his predictions. This curious faculty of divination is said to have exhibited itself again, during the French revolution: "when, in several instances, he not only anticipated the course of events, with reference to the progress of the war, but also the direction which popular movements would take, the plans and objects of the revolutionary leaders, and the results of the measures adopted by the various parties."

All this is very singular; and, concerning it, we have nothing to offer in the way of remark or explanation. We prefer rather to follow Niebuhr to the university of Kiel; whither, after some years spent in the town-school at Meldorf, he proceeded in the spring of 1794. He was at this time just eighteen years of age; and this also is the date of the earliest letters in his published correspondence. Though displaying some precocity of understanding, we cannot perceive that these first letters contain anything very wonderful. We have seen better letters written by younger men; and certainly, they are not free from the usual measure of flippancy, presumption, and indiscreet conclusion, which are apt to distinguish the compositions of book-learning youngsters on first entering into life. He had scarcely been a fortnight at Kiel, before he declares: "I have now, I think, completed the circle of my more intimate friends, and do not mean to extend it." The "circle"

consisted of three professors and five young men among the students. Surely, it was somewhat hasty and ridiculous for him to conclude so confidently, that he would hold no intercourse, save with those eight persons. He speaks of a certain lady as the "first cultivated woman" he had yet seen in the town; adding the somewhat absurd and irrelevant reservation, "except those whom I may have seen at the windows, perhaps without knowing them." The truth is, he had not then spoken with any lady, but the one thus ostentatiously alluded to; and therefore, it was mere impertinence in him to mention her "cultivation" in a way that would lead you to infer that the ladies of the place generally, were not accomplished. In another letter, he speaks of Fichte's defence of the "right of insurrection," in such a manner as to show that he totally misapprehended Fichte's argument, and, probably, pronounced upon it without knowledge. "I begin to fear," says he, "that men are abusing the principles of philosophy, to the establishment of the most dreadful sophistries, or, at least, that a skilful hand may so abuse them. And then," he adds grandiloquently: "if philosophy itself be turned against the cause of right and civil order, and the power of the mob be backed by the authority of brilliant fallacies, what refuge from their united tyranny is left but death!" Now any one acquainted with Fichte's philosophy, knows well enough that, in its authentic application, it could not be turned "against the cause of right and civil order;" but that, on the contrary, it aimed to ascertain the principles on which all right and order are intrinsically founded, and inculcated the necessity of thereto rigidly conforming all political and civil institutions. Other instances of the young man's rashness of judgment and intolerance might be cited; but, considering the straitness of our space, the above may be sufficient in the way of illustrating the crudeness of his mind and his too prominent self-confidence. We should not have thought it necessary to notice such blemishes at all in so young a man, were it not that his biographer leaves nearly the whole of his defects unnoticed, and would apparently have us to conclude that Niebuhr was, equally in his youth as in his age, a sort of natural-born sage, whose commonest sayings and opinions are to be accepted as the utterances of supreme wisdom. At the same time, we have no wish whatever to call in question his actual merits, or to deny that he showed himself, even in the crudest portion of his youth, a highly gifted, pains-taking, sensible, and, on the whole, a very exemplary and meritorious person. All we say is, that he, like other men, and especially, like all young men, had a store of natural weaknesses and imperfections; and we think that, in any account of him which aims to be impartial, these should not be altogether overlooked.

Worth enough, and penetration enough in regard to many things, the young man manifests. He entertains, at this early age, new and original views respecting the colonisation of Greece and Asia Minor, which command the respect of some of the most eminent professors at his university. In relation to these notions, he makes some remarks in one of his letters, which, whether correct or not, indicate a breadth and originality of conception, not often to be detected in a youth of eighteen. "I believe," says he, "that the origin of the human race is not connected with any given place, but is to be sought everywhere over the face of the earth; and that it is an idea more worthy of the power and wisdom of the Creator, to assume that he gave each zone and each climate its proper inhabitants, to whom that zone and climate would be most suitable, than to assume that the human species has degenerated in such innumerable instances. Here is one of the most important elements of history, still remaining to be examined,—that which is, in truth, the very basis upon which all history must be reared, and the first principle from which it must proceed. This, of all subjects, should be thoroughly investigated in the first place; and then (to which philosophy is necessary) a universal history ought to be written, which should exhibit all nations from the same point of view. When this universal history is completed, the separate history of each country should follow. This is the way in which I would teach history, if I had Hegewisch's learning and position." Not much later, he appears to have discerned, what may be properly enough called his own natural vocation. "From the peculiar direction of my mind and talents, I believe that nature has intended me for a literary man, an historian of ancient and modern times, a statesman, and, perhaps, a man of the world; although the last, thank God, neither in the proper sense of the word, nor in the horrible one that is usually associated with it. Meanwhile, my individual taste will certainly carry the day; and if my name is ever to be spoken of, I shall be known as an historian and political writer, as an antiquarian and philologist." This, accordingly, was the object which he kept thenceforth before him, and to which all his other studies were rigidly subordinated.

On going to Kiel, he carried with him letters of introduction to Professor Hensler, at whose house he became acquainted with two more "cultivated ladies,"—Madame Hensler, widow of Professor Hensler's son, and her unmarried sister, Amelia Behrens. Between himself and the latter lady there presently sprang up a warm attachment; and this was afterwards kept up by an interesting correspondence, and ultimately issued in the agreeable consummation which the novelists bring about at the end of the third volume. In a letter to a friend, he thus describes the damsel:—"Milly has a Roman character, and this was always my ideal of a citizen's wife: pride, intellect, the most retiring modesty, unbounded love, constancy, and gentleness. In history we only meet with such women among the Roman matrons. Soft, weak, tender girlishness, would neither have elevated nor strengthened my character." Marriage, for the present, is indefinitely

* The *Life and Letters of Barthold George Niebuhr*; with *Essays on his Character and Influence*; by the *Chevalier Bunsen*, and *Professors Lobell and Brandis*. 2 vols. CHAPMAN and HALL.

postponed, but the prospect of it in the distance serves to stimulate him in his exertions towards the attainment of a suitable position.

In the year 1796 he leaves the university, and obtains the appointment of private secretary to Count Schimmelmann, a member of the Danish government. He lived two years in this position in Copenhagen, and received permission to visit England, that he might learn something further of the external world, and study for a while at the university of Edinburgh. Many of the letters which he wrote at this period have been destroyed, but the greater part of his correspondence with Miss Behrens still remains, and informs us sufficiently of his goings, and of the impressions he received during his stay in our country. London and its celebrities did not strike him very favourably. At a dinner of the Royal Society which he attended he does not appear to have been much edified, but remarks that it justified the sentence that has often been passed upon such meetings. "It was a feast," says he, "and the conversation extremely indifferent; in fact, below the every-day conversation of learned men in Germany." He does not fail to notice and appreciate, however, our solid countrymen's capacity and readiness for work. "Everybody here is in action," he observes; "idleness and half-done work are certainly less common than with us; practical ability is certainly more general—a false show of knowledge rarer; a smooth exterior gains little respect; the word of a man may be depended on, and I believe the better sort trouble themselves little about the opinion of others." Singularly enough, he complains that "most learned men here, as elsewhere, look more to the authority that a man brings with him, than to his talents and intellect." His father's name, as he says, "introduced him everywhere;" but he seems to think that a little more honour and consideration might be paid to his own personal abilities and attainments—not at all reflecting that those could not be appreciated, save on the terms of a long and close acquaintance, and were not likely to be recognised at the moment of introduction. But there are a great many contradictions in these letters which he wrote from England. In one of them he says "I have not availed myself of any introductions to fashionable society, and hesitate considerably to expose myself to the mortification of a haughty reception;" at another time he speaks of his "rather conspicuous position;" and then again he is almost garrulous about his "loneliness" and "isolation." Though he afterwards confessed that he gained many advantages from his visit, he does not yet pretend to have any great liking either for the country or the people; and upon the whole, he persuades himself that he shall feel better pleased and more at home in Scotland.

It took him "three days of weary travelling" to get to Newcastle. There he rests a day, and finally reaches Edinburgh at half past eleven at night, two days later. Of the whole journey, and of his adventures by the way, he sends Amelia a graphic and intelligent description. Seven miles an hour was the swiftest rate of travelling. Curious it is, at this date, to find the young foreigner objecting to its rapidity! "For any length of time," says he, "this rapid motion is quite too unnatural. You can only get a very piece-meal view of the country from the windows, and with the tremendous speed (!) at which you go can keep no object long in sight." What would he say to the Great Western express,—and its sixty miles an hour?

At the university, Niebuhr finds the Professors to be "all he could wish, as men of profound insight, thorough mastery over their subjects, and admirable delivery;" though there is a reservation respecting "one Robinson, a professor of Natural Philosophy," who, when lecturing, in the young student's opinions, "wasted his time with very superficial remarks on the origin and value of the sciences, and further with very unreasonable invectives against modern philosophy." The subjects of study to which Niebuhr gave his principal attention were mathematics and the physical sciences, including among the latter, natural philosophy, chemistry, agriculture, and mineralogy. Philological and historical investigations he only prosecuted by himself in the way of recreation. In regard to domestic matters, he informs us that he lived cheaply "in nice apartments, with firing, for seven shillings a week;" and to avoid the expense of a "hairdresser, took the liberty of wearing his hair plain." Among the persons to whom he carried letters of introduction was an old friend of his father's, named Francis Scott, who received him with the greatest friendliness and cordiality, and gave him the general run of the hospitality of his house. "You are far from your parents and friends," said the old gentleman, "look upon me as your father, this family as your own; I shall regard you as my own child. However hard you work, you will have leisure hours, and need recreation: seek it among us. I am at home myself every evening almost without exception, but if I should be out my wife will be glad to see you; and if you like music, my daughter plays and sings. My eldest son, who is nearly blind, but an excellent youth, will be happy to go with you or converse with you." Accordingly, with these worthy people, Niebuhr spent many a spare hour, meeting always with the most earnest kindness and good will; albeit "the strict and rather pedantic piety of the whole family caused him some embarrassment." Mr. Scott, moreover, supplied him with introductions to some of his friends in the country; one of the places visited being the seat of Sir John Murray, at Kirkland Hill, where Niebuhr appears to have been much pleased with his reception and entertainment.

After a residence in Scotland of little more than a year, Niebuhr, in November 1799, returned to Holstein, where he spent the following winter with his friends. In May 1800, he was married to Miss Behrens; and in June he took his wife to Copenhagen, where through the

interest of Count Schimmelmann he had been appointed to a place in the Board of Trade. His income was not large, but still sufficient for his needs, and he was quite prepared to take the brightest view of his prospects. For the present one thing was sufficient for him, and that was already in his possession. "Amelia's heavenly disposition," says he, "and more than earthly love raise me above this world, and, as it were, separate me from this life Her cheerfulness, her contentment with her lot, untroubled by any wish for any thing beyond it, afford me as heartfelt joy as the contrary would give me pain. Her presence and conversation kept my heart at rest and my mind healthy. Thus I am gradually recovering from the impressions made upon me in past times by the delusions and contradictions of the world."

Happy days, doubtless, were those of the earliest months of wedlock; but how the enchanted couple faded as their union became a matter of every-day commonplace, the editor of these volumes has not been careful to inform us. We do not hear a great deal of "Milly" in Niebuhr's subsequent correspondence with his friends. The principal notice which we find of her in the course of several years is the following, and the date of it is still within the first year of marriage. In March 1801 he writes to Madame Hensler:—"We are reading the *Odyssey* in the first translation. Milly had almost entirely forgotten it, since she read it at your father's when you were both girls together. She thoroughly delights in Homer, and you know how beautiful she looks when she is pleased,—that no expression becomes her better. Hence the reading to her is a great pleasure to me likewise." This was written at the time when Nelson was on the point of bombarding Copenhagen. Niebuhr mentions the tidings of his approach in the same letter. And it is gratifying to find that, under such circumstances, Milly sustains the "Roman character," for which it may be remembered, she was in former times celebrated. She is "perfectly calm," though "the ladies here in general are in great terror." So far so good: let Milly be prepared for the catastrophe. For, as old people and the readers of history will recollect, Nelson quite "smashed" Copenhagen; and among other consequences, occasioned considerable dismay in the Niebuhr household. On the 4th of April, he writes to his Holstein friends:—"We cannot deny it,—we are quite beaten; our line of defence is destroyed, and all is at stake, as far as we can see, without any chance of our winning anything." The appearance of the city after the battle is described as being terrible. "Every place was desolate; there was nothing to be seen in the streets but waggons laden with goods to be carried to some place of safety, a silence as of the grave, faces covered with tears, the full expression of the bleeding wound given us by our defeat." Milly's tears, which were now shed freely, became her as any Roman fortitude. Yet, deprecating as the event was, Niebuhr seems to have recognised the "political necessity" that occasioned it, and says little or nothing in complaint or reprobation of the assailants.

In the year 1806, Niebuhr quitted the Danish service, and entered office in the finance department of the Prussian Government. Within a few days after his arrival in Berlin, the kingdom sustained a serious disaster by the defeat of its army at Jena and other places; and the French immediately advanced upon the capital. All the fortresses and depôts were tamely surrendered to Napoleon, and most of the Prussian ministers took the required oath of allegiance to the conqueror, without so much as asking the consent of their own Sovereign. Stein, the Minister of Finance, alone remained faithful to his duties. Under his direction Niebuhr carried off the archives and funds of his department to Dantzig; and after the surrender of that city he proceeded with them farther to Königsberg and Memel. Peace being restored in the summer of 1807, he returned about the middle of December to Berlin; and in the spring of the next year he was sent on a financial negotiation to Amsterdam. His object being to borrow money of the Dutch capitalists for the Prussian Government, the business detained him in Holland for upwards of a year, and he at last left the country without having succeeded in his mission. Not long afterwards, he resigned his situation under the Prussian ministry, on account of the general confusion of affairs, and because he was opposed to the financial plans of Hardenberg, who had succeeded to the premiership. He quitted office in the summer of 1810, and on his retiring obtained the historical Professorship in the new university then about to be opened in Berlin.

This was an important change in Niebuhr's way of life. He was now thirty-four years of age; having since his twelfth year been almost constantly engaged in the public service—the only period excepted being that which he spent in England and Scotland. All along he had been to some extent occupied with historical and philosophical researches, but he had only been able to devote to them his limited leisure hours; "now," as is remarked by his biographer, "it was to be seen whether he could find satisfaction in the life of a student, after years passed in the midst of the great world, and surrounded by exciting circumstances." From the letters written at this period, it would seem that this literary sphere of usefulness was the one in which he most delighted. The three years during which he held his Professorship is also described as being one of the calmest and happiest portions of his life. At the opening of the university, he began to deliver those lectures on Roman History which formed the foundation of the great historical work which subsequently rendered him illustrious. His anticipations of distinction or success were nowise extravagant at the outset. His friend Savigny says, "He told me himself at the time, that

he had only expected to have students, and a small number of them, as his hearers, and should have been fully satisfied if that had been the case." But his modest expectations were flatteringly exceeded, for, "in addition to a large concourse of the students," the lectures "were attended by members of the Academy, Professors of the University, public men and officers of all grades, who spread the fame of them abroad, and thus continually attracted fresh hearers." This respectful appreciation of his merits could not be otherwise than gratifying; and it seems to have inspired Niebuhr with additional confidence and courage, and to have given him the assurance that he had entered on his appropriate vocation.

Accordingly, while yet engaged in the delivery of the lectures, he began to remodel and prepare them for publication. Minor works occupied a portion of his time, but, by the autumn of 1811, the first volume of the Roman History was ready to appear. During the winter he continued his lectures at the university, and in the course of the next year the second volume was also presented to the public. The "public" (as is not uncommonly the case in regard to eminent productions) gave it only a cool and indifferent reception. Goethe, indeed, on receiving a copy from the author, declared it to be "a noble gift for which he should all his life feel grateful," but the majority of German readers were unprepared for it, and manifold objections were raised against it in various quarters. Some of these objections were perhaps not altogether unfounded—such as the alleged "inequality of style," and the too great preponderance of episodes—but others seem to have originated in the vanity and envy of detractors. As subsequent volumes of the work came out, they did not advance it much in popular estimation; but, on the contrary, the comparatively little interest evinced in it, emboldened gainsayers to treat it with an unmerited disapprobation. August. W. Schlegel attacked the "History" in the "Jena Literary Gazette," and other unfavourable reviews appeared in other publications. One slanderous individual—Gottlieb Merkel by name—went so far in his animosity as to accuse Niebuhr of having torn certain valuable "fragments" out of "books belonging to the Cathedral Chapter at Verona," and feloniously carried them off to be used in the preparation of his history. This was more than even a patient man could bear; so Niebuhr caused a judicial investigation to be instituted, and the result of it was, that Merkel was condemned to "six months' imprisonment, or a fine of 500 dollars, for a libel against Privy Councillor Niebuhr," by which judgment he got at least a portion of his deserts.

We have no space here to speak critically of the Roman History; to do which effectually would require a somewhat lengthened exposition.* Our purpose at present is solely with the author. However, we may briefly indicate what are considered to be Niebuhr's leading characteristics as an historian. His great work is, properly, a critical examination of the original sources of Roman history; and, indeed, Goethe said that, had he been consulted, he should have recommended him to entitle it "A Criticism of the Authors who have handed down the Roman History to our times." So also it has been said of him that he was a "dissertator," rather than an "historian." Moreover, it has been suggested that though he destroyed traditions, he constructed nothing. In reality he was a critic, and not an artist. But by his critical method he totally remodelled Roman history, and gave so new and powerful an impulse to historical inquiry as to have, in effect, changed our whole position in regard to the ancient nations. The spirit and significance of history, its moral and political teachings, the entire relations of the past to the present and the future, have received a clearer and profounder exposition than had been, or could have been, attempted before Niebuhr began his labours; and, by the writers who have followed out his method, and partaken of his influence, the dim outlines of antiquity—the usages, the beliefs, and mode of thoughts among the ancients—have, to a large extent, been reproduced in forms of graphic and life-like representation.

About Niebuhr's academical position in Berlin we have no room for more particulars. As already stated, he did not hold his Professorship longer than three years. Towards the end of April, 1813, he received a summons from the King of Prussia to repair to Dresden, to assist in negotiating for certain subsidies to be advanced by England, and to draw up a commercial treaty between the two countries. He continued to be employed in various political transactions up to July, 1816, when he was rewarded for his former services by the suitable appointment of ambassador to Rome. In the meantime, he had sustained some serious domestic trials. In April, 1815, he was painfully surprised by tidings of his father's death. The health of his own wife was, also, at this time in a very shattered state; as the spring advanced, it altered for the worse, with a rapidity that indicated danger; and at last, on the 21st of June, she died in her husband's arms. He had never spoken to her of her approaching death, much as he longed to receive her parting wishes, because the physician forbade excitement; but once, a few days before her death, he asked her if there was no pleasure that he could procure her—nothing that he could do for her sake; and she replied, with a look of impressive tenderness and resignation, "You shall finish your History whether I live or die." It was an answer not unworthy of a Roman woman, such as her husband delighted to regard her. The words were long afterwards present to his mind, though years elapsed before he was able to resume his work.

* We have already slightly touched upon the subject in an article entitled "Regal Rome," in No. IV.

"It is needless," said Niebuhr to Madame Hensler—"it is needless to paint to you the feeling of loneliness with which I sit within these walls." In all his correspondence about his loss, he dwells chiefly on that one feature of his loneliness. Companionship and sympathy are the things for which he longs. "Only to have a child with me that I loved, would be more to me now than the most intellectual society." The widowed, childless man, how his isolation pains him! nor is lightened by the visitations of the buried form that re-appears to him in his reveries and dreams. That loved familiar face is embalmed as a quiet image in his memory, but the smiles with which it used to shine can never more be kindled. Yet, though he cannot but lament it, he grows resigned to his bereavement. In April, 1816, we find his health improved, and his grief assuming "the character of a quiet melancholy." About that time, Madame Hensler goes to visit him, taking with her as companion her exquisite niece Margaret—a pleasant, lively girl, who had a pretty gift for singing. In his state of "quiet melancholy," Niebuhr found the society of this damsel rather charming; and though he was now in his fortieth year, and Margaret Hensler, perhaps, not much beyond her twentieth, he began, in a sort of sombre but yet interesting way, to say tender things to her, and at length deliberately hinted matrimony. The young girl listened and consented; and accordingly they were married—date not mentioned in these volumes, but apparently a little before Niebuhr set out on his embassy to Rome.

The ambassador and his young bride quitted Berlin in July, 1816, and arrived at the Papal capital on the 7th of October. Here they remained for the space of seven years. Having little or no business of a public nature to transact, Niebuhr had the amplest opportunities for prosecuting his literary studies, amid the various furtherances supplied by the city and its neighbourhood. Yet he does not always seem to have got on very successfully. Writing in January, 1817, he says, "My powers are paralysed by the disagreeable and deadening effect of the fashionable parties which are very numerous at this season. Then, too, the parties here are more insipid and annoying than any I have ever been in before. I have formed the intention of, at least, revising and correcting the Roman History, if I cannot finish it. I sit faithfully enough for hours together before my books, but memory and sagacity will not serve me as formerly: vague recollections of things I have read, and of the existence of relations dawn upon my mind, but refuse to let me grasp them, or to assume a distinct shape." Other anxieties he has respecting the education of a child which he was at this time expecting to be born to him. "I think I should know how to educate a boy," says he, "but not a girl; I should be in danger of making her too learned." It is not unlikely that he would; and so perhaps it was for the best that when the little wonder appeared it happened to be a boy. He was born on the 1st or 2nd of April, and on announcing his advent to Madame Hensler, Niebuhr says, he "weighs nearly nine German pounds, is fat and large, has red cheeks, yellow hair, and blue eyes." Before the month was out, Niebuhr writes, "I am thinking a great deal about his education. I told you, a little while ago, how I intended to teach him the ancient languages very early, by practice. I wish the child to believe all that is told him; and I now think you right in an assertion, which I have formerly disputed, that it is better to tell children no tales, but to keep to the poets. But while I shall repeat and read the old poets to him in such a way that he will undoubtedly take the gods and heroes for historical beings, I shall tell him at the same time that the ancients had only an imperfect knowledge of the true God, and that these gods were overthrown when Christ came into the world. He shall believe in the letter of the Old and New Testaments and I shall nurture in him from his infancy a firm faith in all that I have lost, or feel uncertain about. He shall learn to perceive and to observe, and thus grow familiar with Nature, and nourish his imagination."

Three other children were born to Niebuhr during his residence in Rome, but, being daughters, they do not appear to have created so great a sensation as the first-born. Of his proceedings and relations at the Papal Court there is nothing to relate of sufficient interest to detain us here. Concerning his literary studies and employments, and the progress of his opinions on things in general, there is a good deal of detail in the letters, which it would be impossible to compress in any shape within our limits. One glimpse we may take, in passing, at his position towards the Roman History, which as yet (in 1818) is far from being completed. "I am frightened," says he, "at the prospect of composing my third volume, and the disproportion of my powers to the work, although there are many interesting materials for it. I have become indifferent to the reception of the earlier parts; probably I should not be so if, by straining all my powers, I had brought forth another from my inmost soul. Would it be well if I were so? No, I am convinced that this philosophical equanimity is real death, and that the most vehement emotions, as they have ever been the companions of all greatness and beauty, are also necessary to their existence. Without this storm, the mind will not sail over the floods." From various causes the continuation of the History was delayed, and, indeed, it was not actually resumed until after Niebuhr had quitted Rome.

He returned to Germany in 1823, and after some temporary sojourns in several places, he at length determined on settling at Bonn. Though holding no official appointment in the University, he began, in 1825, to give lectures to the students, on Ancient History and Antiquities, which were continued through several succeeding sessions. In the same year he commenced working again regularly at the Roman

History. New editions of what had formerly been published were now called for, and, upon the whole, the work steadily advanced in popularity and repute among scholars, both in Germany and foreign countries. His literary reputation had grown to be one of commanding eminence, and it would naturally appear to him that he had not lived in vain. He enjoyed the friendship of many distinguished persons, and was honoured by all for his learning and his worth.

His intercourse, however, was not confined to literary circles, but in all the civil affairs of the town and neighbourhood he took an active interest, both from principle and inclination; for he considered a man as no good citizen who refused to take his share of the public business of the place in which he lived. In his personal way of life he was regular and simple in all his habits, disliking any appearance of luxury or ostentation. Though a learned and abstracted man, he did not overlook the claims of family affection; but "liked to hear of all the little household occurrences, and his sympathy was as ready for the little sorrows of his children as for the misfortunes of a nation." During the years which he spent at Bonn he appears to have had as large a measure of wholesome happiness as it was possible for almost any man to enjoy.

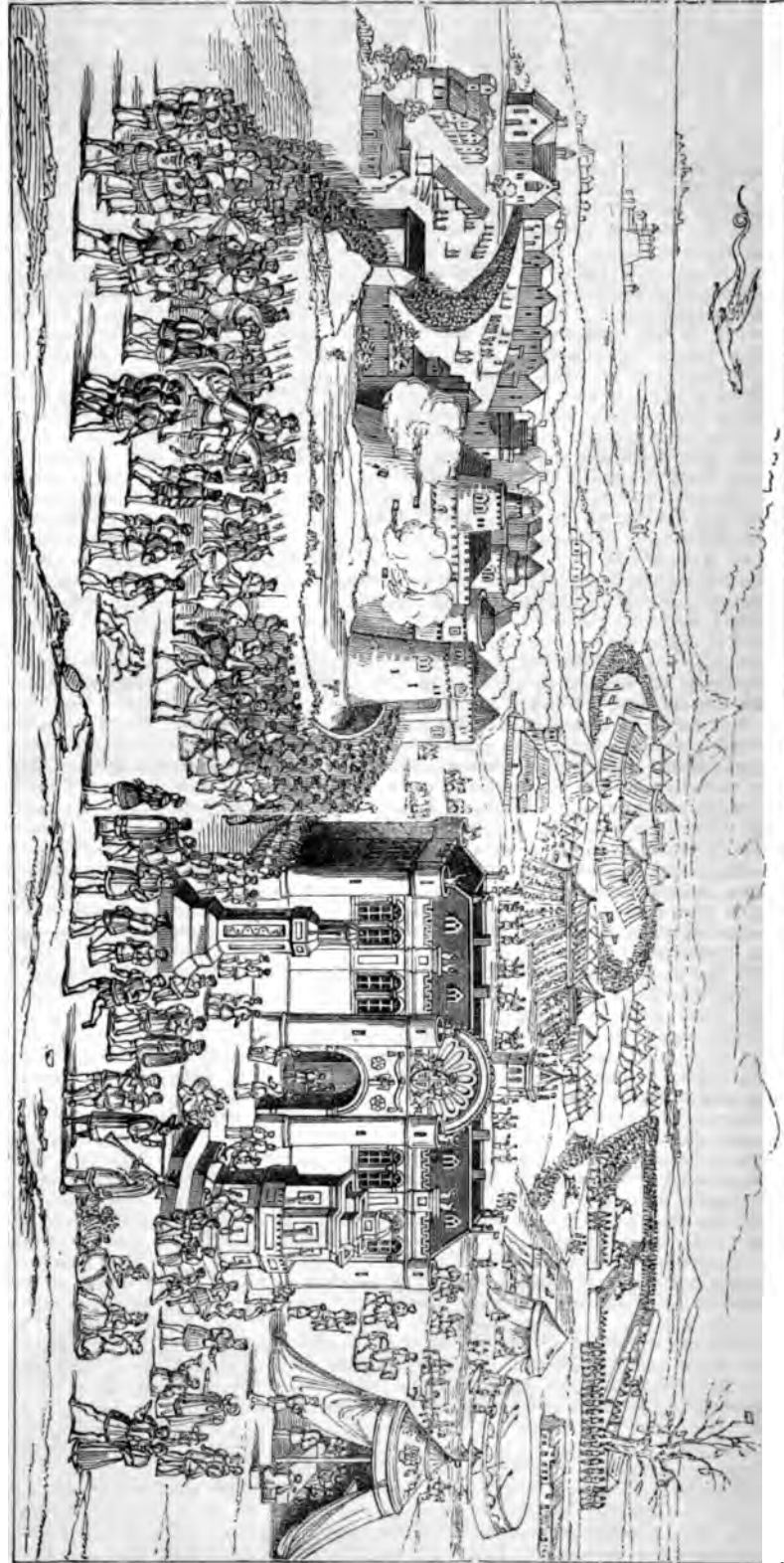
But at last comes the end, which closes alike the joys and sorrows of every man's existence, and extinguishes the light that shineth in the brightest human face. Every biography, and the actual life of every man, closes with a coffin and a grave. Were it not for the aspirations which transcend mortality, the gloom of our outgoing would be too painful to be borne. It is something, too, when a man leaves behind him the recollection of a life that has been well spent. That Niebuhr's was such a life, no one is likely to deny. And if it seems to have been broken off before his authentic work was yet completed, still the work which had been done was a great and eminent contribution to the stores of human knowledge, and will remain to posterity as an inalienable possession.

Niebuhr's labours were brought to a close in 1830, by a succession of disasters and surprises, which his health was unable to withstand. On the 6th of February, his new house, the arrangements of which he had just completed, was accidentally burnt down, and almost everything contained in it destroyed. This misfortune affected him very seriously, but with respect to it, he said, "If only the manuscript of the second volume of my Roman History is found again, I can get over everything else; and at the worst, I feel I have still power enough left to replace my History, and will set to work again, with God's help, in a few days." Most of his library had been burnt, but the desired manuscript was found again, along with a few other treasures which had been looked upon as lost. Niebuhr, however, had scarcely recovered his composure, when he was startled by the news of the French Revolution of July, by which he apprehended that the whole arrangements of Europe would be again thrown into confusion, and another continental war very probably necessitated. The trial of the ministers of Charles X. very much excited him, and appears to have been indirectly the occasion of his death. On the evening of Christmas Day, he sat a long time in the public news-rooms, without taking off his cloak, reading the French journals, and on returning home late through the frosty air, he caught a cold which was followed by an inflammation of the lungs. For some days it was thought he might recover, but by and by it was seen there was no hope. On the afternoon of the 1st of January, 1831, "he sank into a dreamy slumber; once, on awakening, he said that pleasant images floated before him in his sleep; now and then he spoke French in his dreams, . . . as the night gathered, consciousness gradually faded away;" and shortly after midnight he sank back on his pillow and expired. Nine days afterwards, his wife, who had been exhausted while attending him, died also; and the remains of both were buried in the same grave. The Roman History was still unfinished; but the third volume, for which the materials had been arranged, was subsequently prepared for the press by Professor Classen.

A SECOND VISIT TO HAMPTON COURT.

THE PICTURES.

IN the south-eastern corner of the grand or eastern quadrangle, under Wren's Portico, is the entrance to the royal apartments, which contain the famous collection of pictures, for years past one of the main, if



MEETING OF HENRY VIII. AND FRANCIS I. ON THE FANCIES FIELD OF THE CLOTH OF GOLD. BY HOLLAND.

not indeed itself the chief attraction of this palace. To this magnificent suite of chambers, the approach is by the King's staircase. On entering the Hall, the visitor is struck with the glare of florid allegories, which cover the walls. They are the works, some say, with much truth, the

daubs of Verrio, a painter whose conversion from Romanism seems to have obtained for him the favour of William, for certainly he has left nothing after him in evidence of artistic power or good taste to entitle him to the distinguished patronage he enjoyed.

All the great personages of the heathen mythology, who will easily be recognised by their emblems, are introduced throughout the panels, and amongst them are to be seen Hercules and the somewhat equivocal demigods Æneas and Romulus. With these are also associated the twelve Cæsars, whom their progenitor Æneas is politely inviting to the banquet of the gods, probably as a celestial acknowledgment of the creditable manner in which the vagaries of Olympus were imitated in the reigns of those imperial worthies. It is not easy to conjecture why the Roman soothsayer is made one of the company. The Emperor Julian acting as his own secretary, and attended by Mercury, has a panel to himself. His introduction may be considered appropriate, inasmuch as it was he who having been brought up in Christian principles, wished to restore the worship of the heathen Olympus, and might reasonably claim a share in this pagan reminiscence. The first apartment at the head of the staircase is the Guard Chamber, the walls of which are characteristically decorated with military weapons of various forms and ages. There are, also, here, seventeen pictures. Of these six are portraits of admirals, by Backman; eight are military subjects by Rugendas, but they are not very intelligible, either as to their merits or their meaning, to the general observer, nor are they otherwise interesting to the connoisseur or student, except as examples of splendid powers of colouring absurdly neutralised, by "keeping down." Two others are more worthy of attention:—a fine view of the Colosseum at Rome by Canaletti, and a battle-piece by Giulio Romano. The other picture is a full-length portrait by Zuccherro, of one of Queen Elizabeth's porters, who was seven feet six inches in height.

In the next apartment, the King's First Presence Chamber, there are about sixty pictures of various character and merits. There are several historical pictures, illustrating events in the lives of Charles II. and William III., of no striking artistical merit. But the walls are covered chiefly with portraits. Many of them are by Kneller, namely those of William and Mary and the ladies of their court. These will scarcely engage much attention, when the visitor discovers on the same walls, portraits by Titian and Leonardo da Vinci, which are undeniably works of "High Art," embodying the genius of Art as intensely as any of the most laborious compositions of those great men. We question if in any other of his most admired works, Titian has proved the *vigour of his intellect* so much as in this portrait and that of Ignatius Loyola, (No. 113 in the Audience Chamber,) which is here taken first for its rare excellence. This picture stands an immortal proof that portrait painting is an inferior branch of Art only in the hands of inferior men. The force of character, the intelligence, dignity, activity, *keenness*, and profound *depth of thought*, rarely combined, which here express the wonderful founder of the Jesuits, could only be thoroughly perceived, felt, recognised, and put with lifelike force upon the canvas, by a man of the highest mental power, possessing himself a strong sympathy with enthusiasm and greatness. We have seen portraits by Velasquez, Murillo, and some others, having a great deal of this powerful character, which it is absurd to pretend rested all in the subject. But these masters fell very far short of the surpassing richness and truth of colour, which suffice to proclaim the work as Titian's. The portrait by Leonardo da Vinci (of a Man showing a trick) is of an inferior subject, but it is elevated to dignity and grace by the *nature* of the artist. It must be termed a beautiful work—in its degree, also, an evidence of genius. The portrait of a gentleman by Tintoretto approaches very nearly to Titian's Loyola in its principal characteristics. It is a work of great power, and a careful comparison of these characteristics, with those of numerous other portraits in the room, would do much towards the acquirement of critical discrimination in matters of Art. The portraits by Bassano, Giorgione, and Catalani, are also works of more than ordinary interest as well as merit. In the Second Presence Chamber, we have another work by Titian of very different character, but of precisely the same artistic manifestations, the portrait of Alexander de' Medici. It once belonged to Charles I., and is to be regarded as one of the many monuments of his fine taste and love of the arts. It may well be termed "one of the finest portraits" in existence. To *feel* the transcendent merit of this, and the other portraits noticed above, will require some concentrated observation, which many will not take the trouble to bestow, and no doubt to them the genius of the master will be more easily understood in his other work in this room—"Diana and Actæon." The portrait of Bandinelli, by Coreggio, is another beautiful evidence of what a true artist, a master, can produce in this "low walk of Art." So, also, Parmegiano's portrait of a Lady, and those of Philip VI. and his Queen, by Velasquez. Charles I. (an equestrian portrait) is a very noble work of Vandyke's. But with much grace and character, together with fine colouring, it does not "come up" to that high school of genius in portraiture, of which, as far as this collection is concerned, Titian's Loyola is at the head. The Marriage of St. Catherine by Paul Veronese, and also his "Annunciation," are certainly noble works, and in many respects worthy of the glorious days of Art.

We could not go into detail of the hundred pictures in this chamber, but, naming those of principal merit, leave further observation to the visitor's judgment and leisure. In the Audience Chamber, there are about fifty pictures, amongst which no one can overlook Titian's

Ignatius, (before mentioned,) his portrait of his Uncle, and Da Vinci's beautiful picture of Flora, a work which well justifies all the labour that great man was accustomed to bestow upon his exquisite productions. Titian's Cupid and Venus, and the Holy Family, by Coreggio, are masterpieces long known to fame. They call for no elaborate criticism here. There is also here (No. 181) a Virgin and Child, by Andrea del Santo, partaking much of that divinity of expression which was remarkably developed in such pictures by Perugino, but manifested in its highest exaltation by his pupil Raffaele. There are several fine examples of Sebastian Ricci, illustrative of passages in the life of Christ. Of these, the best in composition and character of the principal figure, is Mary anointing the feet of Jesus. Giulio Romano has here a favourable display in mythological subjects, of which the Nursing of Jupiter, although the least pretending, is by far the finest in respect to character, and by no means inferior to the others in colouring and accessories. The Triumph of Venus is, however, a very fine work, and justifies his reputation. The Virgin and Child, by Parmegiano, gives more grandeur to the holy group than that of Del Santo; but it may be worth comparing the two, to discern which of them it is to be preferred for the peculiar kind of expression produced in each. It will be well to carry the comparison into the next room—the Drawing Room, where the Holy Family is again treated by Parmegiano, and also by Giorgione. Those pictures, with the same subject by Coreggio (No. 138) furnish a fine selection for the study of the young critic or student. The Muses, by Tintoretto, is one of his best works. The execution is remarkably bold; the colouring little inferior to Titian,—whilst he has introduced much of that powerful marking of character in the several divinities, which, as we have said, distinguished his portraits. In the next room, William III.'s bedroom, there is a large collection of Court Ladies, in Charles II.'s time, which will very little interest the lover of art, who has examined the portraits we have mentioned. They are principally by Lely; and are pretty nearly as meretricious (in art) as the principal subjects were in character. In the King's Dressing Room, the most attractive pictures are the Virgin teaching the Infant to read, by Cignani; Vulcan presenting the armour of Achilles to Thetis, and Achilles presented to the Centaur, by Balestra; Cupid and Psyche, by Vandyke, one of his best works, beautifully "sweet" in colour, and of remarkable freshness,—the Psyche also possessing much spirituality and tenderness of expression. Two very fine landscapes by Edema, and another by Loten. The admirers of the Dutch school will find a treat in Hondekoeter's Poultry. It is a very fine picture of its class; remarkable for truth and richness of colouring. A painting of similar merit by De Hoem, (Still Life, No. 225,) will be seen in the next room—the Writing Closet,—where there is also an excellent landscape by Huysman. A Head, by Parmegiano, is the only first-class work here; but the Village Repast, by Cepper, will interest many, and is in several respects a superior picture of its kind. In the Queen's Chamber, a Holy Family, by Titian, will first command attention; and, notwithstanding all we have said of the energy and intellect of that great master, and his acknowledged superiority in colour to Raffaele, the far more exquisite treatment of the subject by the latter, will be understood by reference to an excellent copy of his Holy Family, by Giulio Romano. St. Catharine, by Paul Veronese, is a masterly treatment of the same character; to which, however, no one will ever be supposed capable of doing justice, except Raffaele, by any person who has felt the matchless beauty and divinity of Raffaele's St. Catharine, in the National Gallery. Most of the pictures in this room are of high character. In the Queen's Gallery, most prominent, are the portraits of Elizabeth and some of her contemporaries, by Holbein. Although that artist's manner is undeniably hard and flat, and his colouring deficient of brilliancy or richness, and the approach to the "life-like" will not satisfy those who have really looked into the portraits we have before named, yet there is an evident truth and fidelity in his portraiture, which invests these pictures with great interest, and accounts for the favour he bore with Henry VIII., a prince of no very refined taste. His portrait of Erasmus (No. 337) is a remarkable evidence of the fact, that a great mind requires another great mind to comprehend its powers and tendencies. The portrait of a lady by Perugino (Raffaele's master) will perhaps disappoint those who have observed so much of his pupil's peculiar gift of expression, in Perugino's Holy Family at the National Gallery. St. Catharine reading, by Coreggio, revives comparisons which we have already suggested. It is a beautiful work, full of grave beauty and purity, but it is not the angelic Catharine of Raffaele. We have here excellent specimens of Ferg, Poelenberg, Brueghel, Teniers, Vandeveld, and Wynants, all great in their way. There is also a fine battle-piece by Wolvermans, of deserved celebrity (No. 404), and the Nymphs and Satyrs of N. Poussin will be readily recognised by those who have noticed his similar subjects in the National Gallery. The Saint's Head, by Gerard Duow, is a very fine piece of painting and has much character; another work of his of nearly equal merit will be found, No. 421. There are several works of Rembrandt in this room; all master-pieces of colour, light, and life-like effect,—though the effect be of common life; but his characteristics are too well known to need any special analysis here. There is also a charming Murillo, No. 435, A Boy paring Fruit. Two portraits of Venetian Gentlemen, one by Bassano, the other by Tintoretto, are worthy of attention, from the considerations already stated in our remarks upon portraiture, in which others of their works in this class were referred to. Between the windows there are twelve representations of Heathen Divinities by Ricci; they are well-executed, but there is nothing very novel or powerful in the treatment. The collection in

this magnificent apartment contains nearly two hundred pictures. It leads to the Queen's Bed Room, which contains between fifty and sixty pictures. The ceiling is painted in a style and with an effect somewhat above mediocrity—certainly above Verrio, by Sir J. Thornhill. The subject is Aurora rising from the Sea. There is a glorious sea-port by Claude, No. 456. St. Francis and the Infant Jesus, by Guido, is a very fine example of that great master, and is by far the most valuable work in this room. Bassano and Giorgione, will be again recognised with pleasure: and few will see Snyder's Dogs, without perceiving how well that artist earned his reputation for energy, as well as for truth in design, action, and colour, in the painting of dogs, wolves, and other ferocious animals. Hence, we pass into the Queen's Drawing Room, and have another Allegory, by Verrio, painted on the ceiling wherein Queen Anne personifies Justice. The fifteen or sixteen pictures in this room are all by West, and most of them represent or relate to the Royal Family of George III.; but no one can pretend that the subjects are at all ennobled or even made interesting by the amiable and very worthy gentleman who painted them, and whose natural qualifications for the art enabled him to make a very respectable academician, but precluded him from ever attaining in any one work the excellence which would entitle him to that character of *master*, for which he laboured with all his zeal and industry. The Queen's Audience Chamber comes next, and contains about forty pictures, of which the best are Cupid by Parmegiano; Venus and Adonis, by Chiari; and the Woman of Samaria, by Palma. But the most remarkable and striking are, unquestionably, Holbein's really great paintings of the Embarkation of Henry VIII. at Dover, on his way to meet Francis the First, and the meeting of those kings on the famed field of the Cloth of Gold (of the latter of which we give an engraving). Here, also, is the picture of Henry VIII.'s Jester, Will Somers, which we also engrave.* We had almost forgotten to direct attention to a very powerful group of Apostles, by Caravaggio (No. 521). The Public Dining Room is hung with tapestries, of which there are five. The subjects are scriptural, except one which tells the story of Midas. There is in this room, with three or four other pictures, a very fine portrait of Don Carlos, by Murillo. The next room, the Prince of Wales' Chamber, contains perhaps forty pictures, of which several bear the great names, and are worthy of, Titian, Spagnoletto, Bellini, Bassano, Parmegiano, Veronese, and Perugino. But we have met with some examples of all these great men before, and the name of the master of artists, Michael Angelo, withdraws us for a time from the admiration with which those names had filled us, and we are irresistibly drawn at once to the left hand corner to look at his Ganymede. Let

* It is proper to state that the parentage of both these works in Holbein has been disputed.—En.

no one be afraid, when he feels that he does really recognise the master-hand and master-spirit in this comparatively unambitious work (if Angelo could ever be unambitious), he may be unconsciously misled by all he had heard of this mighty man, and that his feelings are unconsciously not his own but *imitations*. No such thing; for if some people would call this a small work for Angelo, it would still be a great work for any other man. It illustrates the adages: "You know Hercules by his foot, and the lion by his foot-marks." But the work is great in every thing—great in conception, great in execution, in design, touch, colour, character, and composition. The landscape below is very fine, and of excellent colour, air, perspective, and keeping. The secure floating of Jove's eagle in mid-air is made sensible to the eye with all the force of this master. But who will describe to you the prodigious energy—the fiery intelligence—that breathes in the nostrils, flashes from the eyes, and, displayed in every limb, pronounce that this undoubted eagle—beautiful and noble eagle—is not a bird of the atmosphere of earth; that it can be none other than the bird we read of as bearer of the thunderbolts! The boy, too, is lovely, as Ganymede should be; he is no ordinary boy—not even an ordinary prince paragon of the heroic times—he is not merely a royal boy. As he leans back, not crouching, but full-length—not fearful, but confident and *phased*; there is, amidst the softness and playful expression of the face, a nobility upon the brow which approaches the sublime, and could only be imparted by Angelo to a countenance of such delicacy, eye, and strange to say, of archness too. The figure is magnificently drawn, and the colouring beyond criticism. It is impossible to quit the picture without observing with what rare power the master has marked the energetic grasping of the boys' legs by the huge talons, with also the most obvious indication of a care not to *press the flesh*, whilst they support the position of the precious burthen, and secure its safety. Amongst the new names which we meet with in the Prince's Drawing Room, the only one worthy of particular attention is that of the celebrated female artist, Angelica Kauffman, who has here a very respectable portrait (No. 594), being in truth of character and colour rather above Lely, Kneller, and West, of whom so much more than enough (except for historical purposes) is to be found in this collection.

In the three next rooms there is little worthy of much notice except the architectural models in the first, the Prince's Bed Chamber. Indeed, in all the remaining apartments there appears little to interest after what we have seen, except where again, here and there, the hand of Murillo, Tintoretto, or such as they, be recognised, until we come to George II.'s Private Closet, which contains the celebrated Cartoons of Raffaele, of which we have already spoken sufficiently for our space in the 8th Number.

Miscellaneous Notices.

EDUCATION IN INDIA.

From a Parliamentary paper just printed, it appears that in the season of 1850 there were 23,163 students in the schools and other establishments for education maintained at the public expense in the several Presidencies of British India. An extract is given from a despatch to the Government of Fort St. George, on "Bible Classes." The Council of Education proposed that the Bible should be included in the studies of the English classes, attendance on the Bible class being left optional. As the provincial schools and the Madras University were for the especial instruction of the Hindoos and Mohammedans in the English language and the science of Europe, it was considered not expedient nor prudent in any way to interfere with the religious feelings and opinions of the people. All such tendency had been carefully avoided at both the other Presidencies, where native education had been successfully prosecuted.

MUSIC BY TELEGRAPH.

A gentleman, near Louisville, Kentucky, according to the "New York Journal of Commerce," has "nearly completed" an invention for writing music as it is played from the pianoforte, the notes upon the sheet being produced as fast, and to the exact time, as the keys are touched by the performer.

PALATIAL HAIR-CUTTING SALOON.

At St. Louis, (U. S.), a saloon, 100 feet long and 72 feet wide, has been fitted up for hair-cutting! Around the sides are placed baths within low enclosures. The floor is of white marble, with marble fountains and flower-stands; the ceiling and wood-work are white and gold. The doors of the baths are of looking-glass; the baths plated silver, set in marble; they have hot and cold water, and a large jet for any part of the body. The shaving-chairs are carved mahogany, and there are crimson velvet ottomans. Above the saloon is the billiard-room with twelve tables; underneath a bowling saloon. It cost 40,000 dollars building, and the same for furnishing. The

charge for shaving and shampooing the head is 8d.; hair-cutting, 6d.; and for bath, 12d. Eighteen years since this town was nothing but a concourse of log-huts and wigwags: now it contains 100,000 inhabitants, who have their hair cut in a palatial saloon.

SCULPTURE FOR THE MANSION HOUSE, LONDON.

It appears that the attention of the Common Council has been drawn to the entire absence of any specimens of the Fine Arts in this building, even where the architect had evidently originally designed convenient situations for such ornaments. In the Egyptian Hall, which forms the principal apartment, there are sixteen niches in the side walls, where doubtless the architect intended sculptured groups or figures should be placed. The City architect, Mr. Bunning, has proposed "That some of our first-rate sculptors be applied to for statues in plaster, so that the niches be at once filled, and that they be remunerated for so doing by giving an order to one or more of them in each year for a statue in marble (to displace those in plaster) representing some passage from our national history, or from the works of our English poets."

He has since reported that the proposal could be carried out at an expense of about 700*l.* per subject; and adds, "I cannot refrain from expressing the delight I feel that the Corporation, in the midst of their important business transactions, should consider the encouragement of this branch of the Arts as worthy of their attention and patronage; and I am sure it will reflect great credit on this committee, that from them the suggestion will have emanated. The patronage of the Corporation will excite gratitude in artists, admiration in the public, and give encouragement (so much required in this country) to art in general."

The General Purposes Committee have recommended the Court to adopt the proposition.

FLAX.

A report from Sir R. Kane to the Chief Commissioner of Works on the preparation of flax has been printed. It refers exclusively to the result of the experiments made by Mr. Claussen, in the works of

Mr. Dargan, at Kildonan, under the supervision of Professors Murphy and Hodges. The quantity selected for the experiments was 100 lbs. The experiments made were of two kinds; first, as to the direct preparation of flax cotton from flax straw, in which the separation and cleansing of the fibre from the refuse part of the stalk was made part of the process; the second was the conversion of tow, or low-priced flax, into flax-cotton. The latter result was more satisfactory than the first. It is stated that Mr. Claussen's agents had to work under disadvantages from the defective mechanical arrangements, and that a nicer adaptation of mechanical and chemical arrangements, at least on a great scale, are required for the satisfactory production of the material which Mr. Claussen proposes to substitute for cotton.

THE PRESS IN FRANCE.

Louis Napoleon has ordered enquiries to be made as to the condition of the numerous persons connected with the press who have been thrown out of bread by the events of December. It is intended, it is said, to do something for those who were not enemies of order. Hitherto many have been provided for, but they were partisans of the Elysee—nothing has been done for persons who laboured for the press, but without taking a decided part in political discussions. Some painful facts are mentioned in connexion with this subject. Several gentlemen who had large incomes as reporters are now actually without the means of existence, and the number of families of compositors who are almost starving is considerable.—*Globe*.

ARTIFICIAL PRODUCTION OF FISH.

A new and rather an extraordinary branch of manufacture has suddenly arisen in France, where a couple of poor fishermen of the Vosges, despondent on the decline of their staple article, the trout, set to work with a series of experiments devoted to the revival of their trade. The artificial production of fish (as well as of small reptiles, such as frogs or toads), has been long known as a scientific fact, and was at one time carried out to some extent in Scotland; but it is only now that the fact has been fairly and fully combined with practice. It is even

said that the two fishermen alluded to have not only made practical use of the fact, but that they re-discovered it for themselves. However this may be, they appear to be fully entitled to be regarded as originators of the practical and successful manufacture of fish, which are now produced by millions—we had almost said billions—every season. Of course, it is only by making use of the melt and the roe of the fish at the proper season! and disposing of these to the best advantage by artificial arrangements, that the young stock is collected. We cannot enter into the details of the manufacture here, however, but must refer to a recent little shilling pamphlet on the "Artificial Production of Fish," by Piscarius, published by Messrs. Reeve and Co. of Covent Garden.

FINE ARTS PRIZE.

An association has just been formed at Birmingham, for the purpose of encouraging artists to send high class pictures to the Exhibition of the Society of Artists in that town, by rewarding the best work

or works with a suitable premium. The association, which is totally distinct from the society whose interests and those of art generally it undertakes to promote, offers a prize of sixty guineas, for the current year, to the artist of the best painting in oil, exhibited at the forthcoming annual exhibition of the Society of British Artists, and throws it open to all artists, simply excluding pictures which have been exhibited before, except in the London exhibitions of this year. These are eligible for the prize, and all pictures sent in competition must be stated as such by the artist when sent. As the Triennial Musical Festival takes place this year, and a great influx of visitors is expected in Birmingham, this will prove a good opportunity for artists to bring their works before the patrons of the Midland counties.

THAMES EMBANKMENT.

The Commissioners of Works are empowered by an Act of Parliament, which has just been printed, to construct an embankment and public road, to

extend from Vauxhall-bridge to the Chelsea-gardens. What improvement this may be for the public has yet to be seen.

HONOURS AND REWARDS FOR LITERARY SERVICE.

We see by the Gazette, that Mr. Charles Rowcroft, author of "Tales of the Colonies" and other works of fiction, has obtained an official appointment, in which the knowledge of colonial and American life displayed in his novels may be turned to account. He is named as English consul at Cincinnati. While speaking of this act of recognition of the claims of an old servant of literature—we may add a word of satisfaction at the result of Mr. Layard's resignation of the post of Under-Secretary of State for the Foreign Department,—namely, his return to the House of Commons at the head of the poll for Aylesbury; in the representation of which borough he succeeds a literary nobleman recently taken from the books and men whom he loved so well—the noble author of the "Memorials of Hampden."



WILL SOMERS, HENRY VIII.'S JESTER. BY HOLBEIN.—IN HAMPTON COURT.

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HOSPITALITY. FROM A PICTURE BY J. C. HORSLEY.

"USE HOSPITALITY ONE TO ANOTHER, WITHOUT GRUDGING."

THE ETIQUETTE OF HOME.

AMONG the middle and lower classes of society, it is undeniable that good breeding has made considerable progress within the last fifty years, the tradespeople and peasantry of the present day frequently

showing a delicacy of manner, a refinement of feeling, that was wanting in the noblesse of a former age; but one great fault, which cannot but obtrude itself on the notice of every one in any way connected with the classes in question, is, that whilst they exhibit a *gentle* (I employ the word in its ancient acceptation) visor to the world, the mask is

thrown off with their coats and shawls the moment they enter their own doors; and many who are polite and engaging in their behaviour abroad, are incredibly surly and vulgar at home, reminding us of the consummate hypocrisy of Cowley's puritanical mistress:—

"She that sings psalms devoutly near the street,
And beats her maid in the kitchen, where none see't."

I grant that the same avatar occurs to a certain extent amongst earls and countesses, for "apes are apes though dressed in scarlet." My Lord Marquess of Steyne, magnificently courteous as he is thought to be, treats his poor wife savagely, and is a brutish tyrant in the privacy of Gaunt House; and Lady Moulton Benin, whose title heads every soup subscription and blanket society list, and who makes a *business* of charity, may be supposed to expend her entire stock on strangers, since in her domestic character she displays

"More sullen discontent than Saturn's brow,
When he sits frowning on the births of men."

but the conventional immobility of rank spreads a quiet colouring over aristocratic "brusquerie" as age tones down a gaudy picture; and the habitual ceremony of high life precludes marked incivility and open coarseness from often entering the family circle.

By the like spell the ring might be kept inviolate elsewhere. Let home etiquette be more attended to by the middle and lower grades of the great human scale, and it will be found to strengthen and consolidate the whole. I do not by this advocate that tawdry mimicry of fashion which casts a yoke over the neck of a host of helot-disciples; I hold up a character, not a class, for imitation; the one it is absurd to emulate, the other is within the reach of all; for there is no barrier to the distinction of a gentleman.

Those who desire to advance the noble cause of truth and love, as there are many in this our era that are earnest in doing, (so as to indicate that we are on the point of a most wonderful transition); those who are zealous in the modern crusade against unbelieving ignorance; those who, trusting in the onward movement of the human race, are at all times ready not only to call on Jupiter for aid, but to put their shoulders right willingly to the wheel, cannot, I believe, help more effectually than in encouraging dignity of habit in the duties of every-day life.

Oh, how noble, how glorious is the harmony of a home where all are desirous of assisting and pleasing one another! More majestic than the state of courts—more venerable than the most magnificent symbolic pageantry; its concord sympathises with the peaceful music of the spheres, that faultless union of nature's tones dreamt of by bards, recognised by sagest philosophers.

Such homes are but too rare; not, I believe, from any lack of kindly feelings. Many are the abodes of extreme affection, but it is continually shaken, blinded, driven from the hearth through a carelessness, a look, a word, which the strict observance of the precepts enjoined in the code of civility would have entirely obviated. The truth is, we are usually too familiar with our households.

I dare say most of my readers can recollect when they were good little children in brown holland outer garments, with red hands, whilst being initiated into the mysteries of calligraphy, having copied the following apophthegm again and again, till the verity of the inscription was painfully clear in their own minds:—

"Familiarity breeds contempt."

Like most other old proverbs, there is much sterling truth couched in this sentence. If we wish to maintain a proper regard for our fellows, we must not get too close together. As long as the brazen and earthen vessels in the fable kept asunder, they went on well enough; but we are there taught that a crash would have been the consequence of their collision. So it is with ourselves; we must be respectful in our demeanour towards our associates, or woe to the delicate, the high-minded! We must tinge with politeness our intercommunications, if we would desire to be respected, loved, by those about us; and what other love, what other approval, is comparable with this! Dignity evaporates quickly in every-day life, as the dew of summer, more especially among the humbler classes, where individuals are bound more closely together by social ties than in the frigid zone of "le haut ton;" it must do so without the observance of etiquette, which people are ordinarily too lazy to act up to, so that it has been silly said that no man is a hero to his valet-de-chambre. I admit it requires, with the generality of dispositions, the strictest circumspection to entertain unruined courtesy towards those with whom one is in quotidian contact, whose minutest failings are exposed to us, and who, we are aware, are perfectly well acquainted with our own foibles; but perseverance has overcome this, and far greater obstacles than this; as the Arabs remark, "Let us be patient, only let us be patient, and the mulberry-leaf will become satin." But some may say, "Oh, what service is it for one or two of a family to be polite when their complaisance is unnoticed by the selfish, or sneered at by clowns? It is all very well amongst the aristocracy, with whom elegance of manner is habitual; but with us, to demand observance from our equals would be presumption;" and purity of taste is branded as squeamish affectation. Perhaps this might be, at first; but eventually, should more roses not be added to the group, we may depend, if they were the true flowers, they would impart a portion of their fragrance to the clay. New creeds must expect opposition. When forks were invented, and first came into fashion on the continent, (*sic*

parvis componere magna solebam), a German divine actually preached against them, deeming it an insult to Providence thus to rob the fingers of their natural privilege. Tom Coriarte, the traveller, got the nickname of "Furcifer," (fork-bearer), on his bringing home one with him as a curiosity from Italy, and this now universally useful implement was the subject of a monstrous deal of ridicule to our early dramatists. Refinement of ideas, however, triumphed over satire and ignorance; and what it was considered ridiculously affected, nay, sacrilegious to employ, we Sybarites of the nineteenth century would feel it a sad inconvenience to be deprived of.

Waldenstein, in his private diary, observed, "I have felt real bodily pain at hearing any one make use of a violent oath or imprecation, so much so as to be obliged to leave the room." This is the effect blasphemy must always have on every well-regulated and delicately strung mind; but with the common-place, the dull, the disordered, it is otherwise; and (I regret to say in the patrician as well as the plebeian ranks) we meet with multitudes of living souls so jarred by the frequent and, we hope, meaningless repetition of curses, that they hear and repeat without emotion that which once excited the keenest suffering.

It is the same in minor matters as in this; the monotony of every-day life, whilst it renders the herd half deaf to its discords, fosters a swarm of petty grievances that rankle like poisoned arrows in the bosom of the sensitive; a terrible locust-brood that devour ruthlessly the entire verdure of the beautiful and the good. It is these pigmy vulgarisms, whose Lilliputian stature shields them from the unobservant, that should be first attacked; for, when they are subjugated, the greater ones, ashamed of standing naked and alone, will as surely yield as the lofty fortress-battlements when the warriors who defended them have thrown down their arms and fled.

It was Raphael Hythloday (a learner of trifles), who discovered Utopia. The noisy shutting of a door; contemptuous inattention when another is speaking; a disgusting word or gesture; let these be reformed. A feather indicates which way the wind is blowing. We do not find people, except they are the incorrigible—wretches, disagreeable, irremediably disagreeable, as Lopez in the play,* "whose own cat cannot endure him," committing these sins in stranger's houses. Mrs. Smith is rather obsequious than otherwise, and would as soon think of appearing in full Bloomer costume as of slamming the door in my face, were she ever so irate; yet is it but for to leave her own room after the slightest vexation, and the entire edifice reverberates! The practice of dressing for dinner is excellent. If people can only afford time to pass a comb or brush through their hair, and see that their hands are clean, this will show a self-respect and sympathy for the feelings of others that cannot but be conducive of harmony and good fellowship. But for my own part, I would rather forego a portion of my meal than infringe one jot of the entire propriety demanded by good breeding. It is customary to do this when we have company—is it right, then, to refuse to those who are nearest and dearest to us the gifts we would lavish upon strangers? There are thousands of respectable folks who at their own table economically make their knives answer the purpose of a spoon, stretch across to fish out with their own fork the finest head of asparagus for themselves, make more hubbub than ever the bearish Dr. Johnson did over their soup-plate—who would tremble if they thought they had been unwittingly guilty of such grossness whilst dining out. Bats, moles, owls that they are! unable to perceive that the sanctity of one's own hearth is of far greater importance than the barbaric rites of a score of heathen temples! We have heard of a plant called barometz,† which is found growing on the wild steppes of Tartary, which, according to old writers, bears a striking resemblance to a sheep, or kid, or some small animal, so that travellers have often been deluded into the belief that they had fallen in with a prize, and, peradventure, whilst gloating over an imaginary supper of the tenderest roast lamb, have been drawn out of their track to examine what proved on nearer acquaintance to be a fetid fungus, whose malignant influence prevented any grass or herbage from flourishing near it. Examples of another species of this polypodium are common enough among ourselves: at a short distance they bear so strong a likeness to a true gentleman as to deceive the *ἄλγος* (the multitude); but to their families and those few nyctalopes who, with Tiberius Cæsar and the feline race, can see where others but grope, they present a doleful alteration; and, like the Jewish charnel-houses, by an elegant superstructure conceal an unknown amount of foulness and decay. I do not mean to say that even this is not better than open undisguised outrage; if you must expose your baldness within doors, pray stick on the laurel wreath directly you go out; at the least it will save you from being jeered and hooted at, and, as a charm, it wards off the thunderbolt! I would rather be the barometz, occasionally alluring a mistaken wayfarer to approach me, than a solitary upas, shunned and detested by all. I admire the hospitable courtesy practised by the guests of a Tartar inn (as related by Huc), who, however boorish and barbarous in their own tents, never fail, on entering a caravansera, in the etiquette of going round and inviting all in the room to join in their repast:—

"Come, come all together!" you cry, "Come and drink a little glass of wine—eat a little rice!"

"Thank you, thank you!" responds the company; "Come, rather, and seat yourself at our table—it is we who invite you;" and then,

* Beaumont and Fletcher's "Women Pleased."

† Cibotium Barometz.

having in the phrase of the country, 'shown your honour,' you may sit down and take your meal like a man of quality." *

But this is but the shadow of that home etiquette, the bright and noble beacon, the true semaphore, by which I would that we should direct our course. It is selfishness which frequently dictates that of the street and the railway carriage, but a spark of the divine fire animates those who support all courteous propriety in private. Station imposes peculiar forms on those who occupy her highest seats; now they must hold out their hands or their feet to be kissed by thronging votaries; then they are obliged to stand up and be shot at, or to maim their companions in the tilting-list; here, she compels her children to deform themselves, and to grow up toothless or crippled; there, she commands the widow to immolate herself and to die serenely, praying undisturbed amid the suffocating flames of her husband's funeral pyre. But the edicts of home etiquette are of force in all classes, for we all sprang from one root, and are all journeying to one end.

Courtesy, like the sun, gives its light without favour. The poorest cottage-girl, who respects herself and those about her, is a gentlewoman; but she who dances all night long in white satin shoes, and has a graceful word and smile for every guest, and flings her ivory hair-brush at her weary maid in the morning, is but the phantom of one, although she lives at the Hall and rides in a coroneted carriage every day of her life. Wealth, and fashion, and initiation into the whims of coteries, are not requisite to make "the gentleman" and "the lady;" these are but adjuncts which are continually enveloping slims, charlatans, and pretenders, who, assisted by the confused applause of their comrades, manage to squeak out something that sounds very like "Shibboleth," and passes amongst the many for the correct and approved pronunciation. Without attention to the etiquette of home, it is in vain we look for "the gentleman," it is in vain we look for "the lady," in any class from the peer to the rustic; but with it, we may hope to discover those rare and perfect blossoms which, like amaranths, unfading, bloom eternally, which cast a halo around them, and whose qualities reflected back on one another through all ages, as the poet's echoes—

"Roll, from soul to soul,
And grow for ever and for ever!"

We may expect to meet them as often in the humble and the poor as amongst their more fortunate brethren; and I repeat, it is by the cultivation of home etiquette that would be created a permanent holy bond of fellowship between ranks that have been as yet too much divided. Nor is it *sky-rocketing* (as the Germans would say) to predict that these things are advancing on us, that the time is coming when mankind will pay homage to their individual grandeur, as they shall universally recognise their high destiny. The farseeing poet has traced out the shadow in the van; but perhaps even he was holden from witnessing the sublime consummation, and in unconscious ecstasy chanted that "melody loud and sweet"—

"That made the wild swan pause in her cloud,
And the lark drop down at his feet,"

when he sang "of what the world will be"

"When the years have died away."

These are but a few thoughts that I have strung together almost at random; and now that I am about to close this paper, I feel more than ever that the subject deserves a longer and more efficient notice; for, to quote from Sir Thomas Brown's quaint introduction to his highly curious and learned "Pseudodoxia Epidemica," "A work of this nature is not to be performed upon one legge, and should smell of the oyle, if duly and deservedly huddled." What, however, I have here said may induce consideration of the matter, and give a slight glimpse of its importance to those who may have hitherto disregarded it as insignificant.

THE WORKSHOPS OF ENGLAND.

THE MANUFACTURE OF STEEL PENS.

BIRMINGHAM, the "toyshop of the world," is famous for the production of a great variety of useful and ornamental articles in iron, brass, steel, silver, and gold, but few of them in these days are of more interest than the novel but highly important manufacture of Steel Pens; and a brief account of a visit to the largest manufactory of steel pens in that town, or in the world (for Birmingham supplies Europe, Asia, and America with these new implements of writing), will enable the reader to understand the magnitude of the operations, and the various processes through which a piece of steel passes before it becomes that lexible instrument which has superseded the quill as the recorder of our wants, our business, and our affections.

The manufactory from which our illustrations are taken is that of Messrs. Hinks, Wells, and Co. A few years ago it consisted of a comparatively small house on one side of the street. Now the establishment has outgrown its original limits, and has become an immense manufactory, giving employment to 564 hands, consuming 2½ tons of steel per week, turning out 35,000 gross of pens weekly, or 1,820,000 gross in a year, and, consequently, contributing in no inconsiderable degree to promote the interchange of ideas, whether literary, commercial, or social, throughout the civilised world.

* Huc's "Travels in Tartary, Thibet, and China."

If our readers will accompany us on a visit to this manufactory, we shall trace the progress of the pen from the raw material to the finished article, and so give them an idea of the very interesting operations. Entering a shed at the extremity of the larger pile of buildings, we are introduced to the metal in its crude state. This consists of the best quality of cast steel, made from Swedish iron, its granular structure dense and compact. It is now in sheets 4½ feet long by 18 inches wide, which sheets are clipped across into lengths from 1½ to 4½ inches wide. These strips are packed into cast metal boxes, and placed on what is technically called a "muffle" or large stone oven, heated to a white heat: there the process of annealing takes place. After twelve hours of this roasting, the strips are placed in revolving barrels, where, by the friction of metallic particles, the scales caused by the annealing and the rough edges are removed. They are now ready for the rolling-mill. The rollers consist of metal cylinders revolving upon each other. A man and boy attend at each. The first introduces the strip of steel between the opposing surfaces, and the boy pulls it out considerably attenuated. From the first pair of rollers it passes through several others, until it finally assumes the requisite tenuity. Such is the pressure employed that the steel, in passing through, becomes hotter than it is sometimes convenient for unpractised hands to touch. The strip of steel is now precisely the thickness of a pen, is quite flexible, and has increased in length from 18 inches to 4½ feet.

It is now ready for the "cutting-out room," where the pen first begins to assume a form. Along this room a number of women are seated at benches, cutting out, by the aid of hand-presses, the future pen from the ribbon of steel. This is done with great rapidity, the average product of a good hand being 200 gross, or 28,800, per day of ten hours. Two pens are cut out of the width of the steel—the broad part to form the tube, and the points so cutting into each other as to leave the least possible amount of waste.

From this room the "blanks" are taken to be pierced. The flat "blanks" are placed separately on a steel die, and, by a half-circular action of a lever turning an upright screw, a fine tool is pressed upon the steel, and forms the delicate centre perforation, and the side slits which give flexibility to the pen.

All this time the metal is soft, bending in the fingers like a piece of lead. It becomes necessary, however, that it should be rendered still softer. The pens are consequently placed in the heated oven, and a second time annealed. Proceeding with these softened pens to the "marking-room," the ear of the visitor is assailed by a continuous volley of sharp heavy sounds. An animated scene presents itself. Upon each side and down the middle of the room are arranged a multitude of young women at work, each of whom raises a weight by the action of the foot, and suddenly allows it to fall on the pen. The rapidity of this process is equal to that of cutting out the blanks, each girl marking many thousands of pens in the day. When it leaves the hand of this operator the back of the pen is stamped either with the name of a retail dealer at home or abroad, a national emblem, a piece of questionable heraldry, or the representation of some notability, foreign or domestic, according to the fashion of the day. The distinctive marks in this manufactory number about 3000.

The next process is the "raising." Until now the pen is flat; and by being placed in a groove, and a convex tool dropped upon it, forcing it into the groove, it is bent into a tube of the required shape.

Upon the perfection of the slit, of course, depends the value of the pen. Those who recollect the difficulty experienced in getting a perfect slit in a quill-pen, can understand how much less easy it is to prevent the gaping of a metallic substance. The first preparatory process after the pens leave the raising-room, is to return them once more to the muffle, into which they are placed with small iron boxes with lids, and heated to a white heat. They are then drawn out and suddenly thrown into a large tank of oil, where, by the chemical action of the liquid on the steel, the pens attain a brittleness that makes them crumble to pieces when pressed between the fingers. After being cleaned from the oil they are tempered, or brought back to the condition of softness and elasticity which they are henceforth to retain. This is done by placing them in a cylindrical vessel, opened at one end and turned over a fire, somewhat after the fashion in which coffee is roasted. The action of the heat gradually changes the colour of the pens, first from a dull grey to a pale straw colour, next to a brown or bronze, and then to blue.

Still the pens are rough, and covered with small metallic particles. To remove this roughness they are placed in large tin cans, with a small quantity of sawdust, &c. These cans lie horizontally on a wooden frame, and are made to revolve by steam power, the pens rubbing against each other, and so cleansing themselves. From this process of "scouring" they are taken to the "grinding-room." This is also an animated and interesting scene, from the great number of young women employed, the apparent complexity of the machinery, and the busy regularity with which the work is performed. Each individual pen of the 262,080,000 which are annually turned out of this establishment undergoes the process of grinding, which employs one-fourth of the entire number of hands engaged in the manufactory. If the reader will examine his steel pen before he uses it, he will perceive that the back, above the point, is ground in two different directions—first from the tube to the point, and then across—the quality of the pen very much depending upon the grinding. We have previously referred to the difficulty of getting a close slit in a quill pen. The grinding serves the same purpose as the scraping the back of the quill did; *as, by weakening a certain part of the metal, the point where the slit is made has*

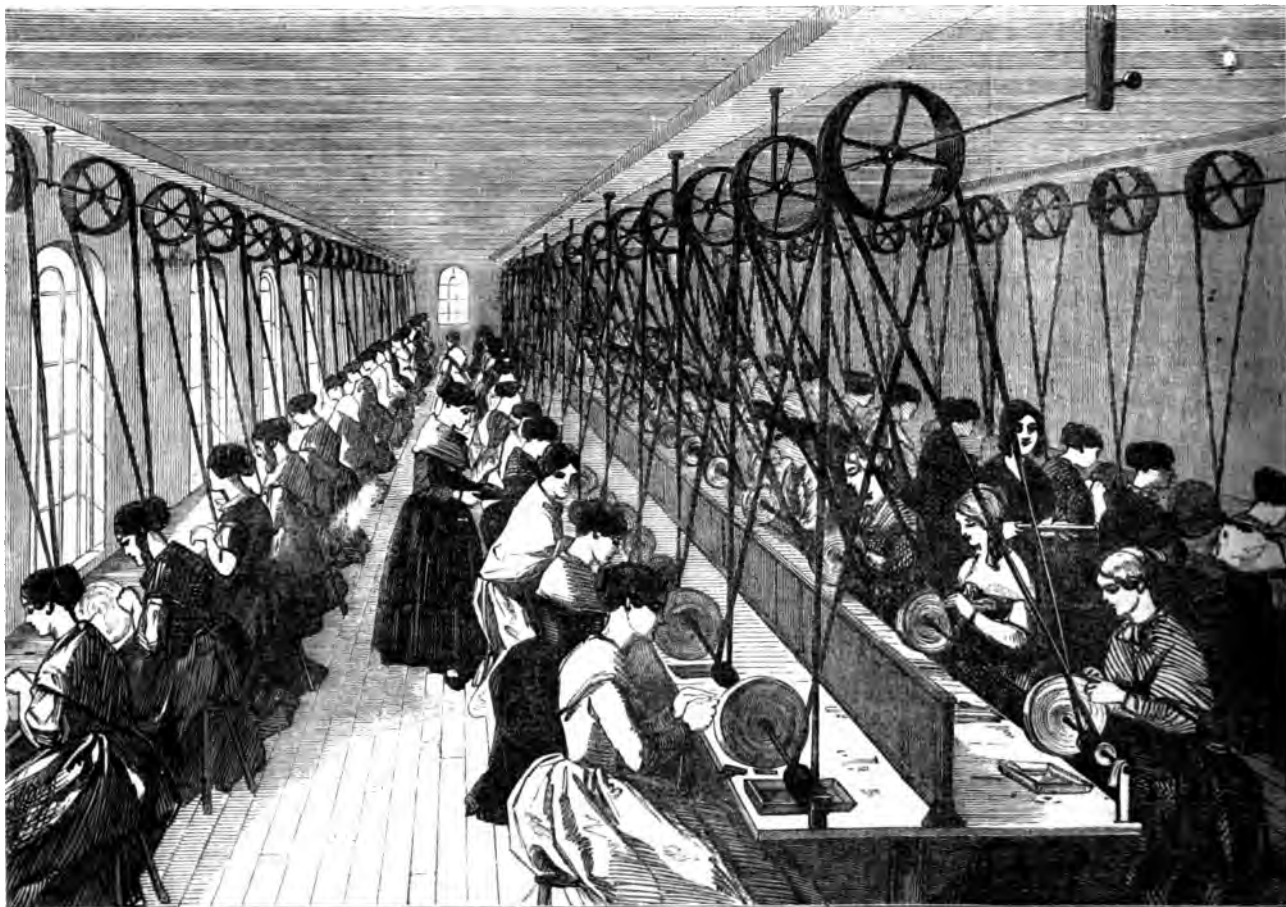
a tendency to cohere, and so to form a good pen. The pen is simply caught up by a pair of nippers, and held on a revolving "bob," and so ground.

The pens are now taken to the "slitting-room," which is filled, like the other rooms we have visited, by girls and women, all busy at



ROLLING THE STEEL FOR PENS.

silent. The only sound is the click of the tool with which the slit is made. The work is very light, for the pen is simply placed on a press, and, the handle being pulled, a sharp steel tool descends, and the pens are perfect. To secure uniformity of quality, the pens are all looked over, by the points being pressed against a small piece of board, placed on the thumb, and they are then thrown into heaps according



THE PEN GRINDING ROOM.

to their quality of good, bad, or indifferent. They are next varnished with a solution of gum, and are ready for affixing to cards, or boxing —the latter mode of packing being almost universally adopted. In this final stage, twenty sets of little nimble fingers weigh the pens into

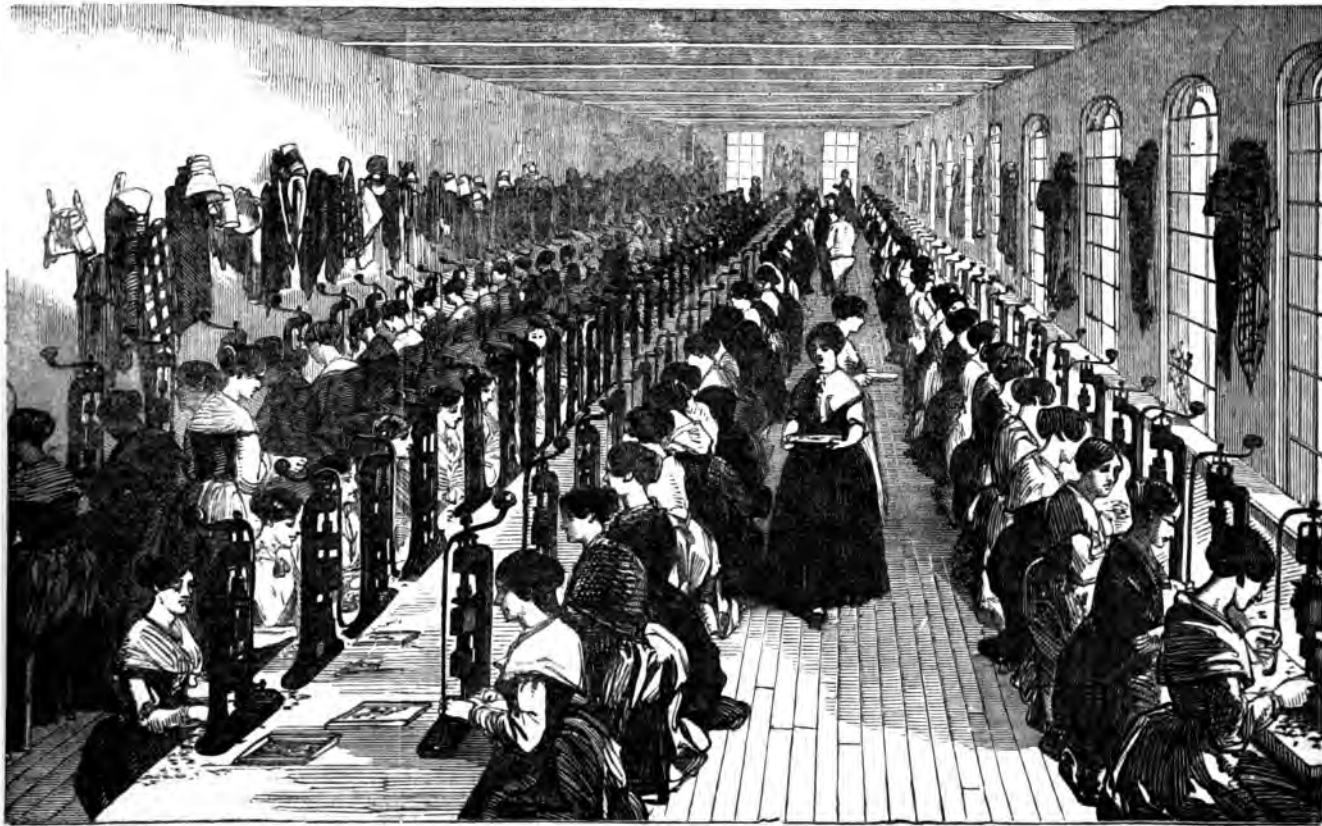


BRONZING STEEL PEN.

grosses, shake them into handsome little paper boxes, and finally seal them up with the smart label which records their quality, and the real or assumed "whereabouts" of their manufacture.

Thus far the process of pen-making in this manufactory does not differ from that employed in other manufactories. There is, however,

one peculiarity in the process which deserves to be mentioned, namely the invention of a machine, or tool, by which three perforations are made in a pen at one action of the press. By this process, also, the fanciful designs into which the side slits are thrown are produced by the same action of the press which makes the centre slit. It is not



THE SLITTING ROOM FOR PENS.

difficult to perceive that, with such mechanical appliances, production will soon be enormously increased; and if it is, it will no more than keep pace with the extraordinary demand which is a necessary consequence of excellence combined with cheapness.

Although the price of steel pens has fallen from 8s. a gross in 1830 to 6d. a gross in 1851, the wages have improved, nominally and really, above 25 per cent., in consequence of the mechanical facilities of production. Some of the more skilled workmen get high wages. The tool-makers especially are remarkably well paid. The younger girls earn from 5s. to 7s. a week; the elder, 12s. and 14s. Even at work they are generally well dressed; and to purchase their finery they club together their spare pence, and draw a chance weekly. The men have also their clubs, and a circle in which they visit each other's houses at stated intervals, the rules providing for the strictest temperance and good behaviour. To enable them to obtain medical relief when necessary, a fund amounting to 30l. per annum is subscribed to the hospitals, by which they obtain out and in-patient tickets. For this purpose the men subscribe 6d. a month, and the girls 1d. In all these prudential arrangements they are zealously seconded by their employers.

To these provisions for health and comfort is added another fund, expended annually on a "gipsy party" to some of the beautiful rural spots in the neighbourhood of Birmingham. The girls and women pay one penny a week for twelve months towards it, and the men twopence a week. On the last occasion the party mustered no less than 350 people. They started from Birmingham at seven o'clock on a fine summer morning to Hagley and the Clent Hills, to pass the day. They filled forty-five cars, which were gaily ornamented with banners and devices, and they were accompanied by a band of music. The whole of the party breakfasted in the open air, in tents, at the Hagley Arms; then walked in procession up to the Clent Hills; and, having enjoyed the beautiful scenery—commanding a view into Wales—got up quadrilles and other country dances, which, with other amusements, were continued until dinner-time. The party dined in tents in the open air, the band playing popular airs during the whole time. They returned early in the evening, without an accident occurring to mar the general enjoyment. These gipsy parties have lately become exceedingly popular among the working-classes in Birmingham, and there is scarcely a trade in the town which does not have its annual festival of this kind.

It may be stated, in conclusion, that the total number of hands employed in the steel pen manufacture in Birmingham is estimated at upwards of 2000; of whom more than one-half are employed by the firm whose operations we have just described, and by the equally celebrated house of Joseph Gillott and Co. The manufacture owes much of its present prosperity to the enterprise and perseverance of the last-named gentleman.

THE BRITISH MUSEUM.—THE NIMROUD GALLERY.

IN the present article we propose to give representations, with a descriptive account, of some of the most remarkable of the Nimroud sculptures in the British Museum. In proceeding to details of this



Fig. 1.—TURBANED HEAD.

subject, we beg to refer our readers to a general historical account of these interesting remains, which appeared in No. 2 of this Journal.

Fig. 1 is a head with a turban laid in folds close round; a row of curls appears from underneath the turban at the back; the beard is short and formally curled, and no ear-rings are visible.

Fig. 2 is a head uncovered; the hair arranged in six formal rows of

curls at the back; the face is very full, and quite beardless; a three-lobed ear-ring is shown.

Fig. 3.—Entire figure of the King: dimensions, 8 feet 11 inches and 3 feet. His cap is the usual truncated cone, richly decorated, with the small cone at the top, and the two long embroidered and fringed fillets depending from the back. He wears long pendant ear-rings, and his beard is very long, and, like the hair, formally curled. The underdress reaches to the feet; it is embroidered with rosettes in square compartments, and bordered with a tasselled fringe. The mantle is adorned with rosettes, dispersed over its surface, and has, besides, a fringe, with an embroidered heading. The sandals on his feet are painted. His left hand rests upon the hilt of his sword, the two-lioned scabbard of which appears at the back. His right hand is raised, and holds a long staff. Upon the wrists are bracelets, with richly-carved rosettes; and on his arm is a decorated metal armlet, lapping over.

Fig. 4.—Entire figure, the same as the preceding. This figure is beardless, the head uncovered, and the hair elaborately curled in the same fashion as all the other beardless figures. The carving is a highly-ornamented pendant; he wears an armlet wrapped twice round the arm and elaborately finished at each end, and on the wrists are bracelets of four rings, connected by a rosette-shaped clasp. He has no sandals on his feet. The robe, which reaches to his feet, has a deep-knotted fringe with an embroidered heading, and over the robe is worn a peculiar article of dress suspended from the neck to below the waist. It consists of a broad band of embroidery like that on the robe, from the entire length of which falls a double row of fringe or fur extending to the knee, and covering in the whole of the back of the figure from the shoulder; it likewise forms a covering to the arm, to a little above the elbow. The sword hilt appears in this ornamented band, and the point protrudes at the back of the figure, and would suggest that this figure is an attendant upon some important personage. In front of the figure is a part of a sword, and a portion of a fringed garment, indicating that this is but one of a group.

Fig. 5.—Fragments of two colossal horses' heads, richly caparisoned in the highly decorated head-trappings, parts of which resemble those at present in use in the East. A hand is seen holding the horses, but no other part of the figure remains.

Fig. 6 is one of a curious series of reliefs, representing the attack and capture of several fortified places by the Great King.

The first of these reliefs represents the attack on a fortress by the army of the Great King, typified by two bearded and one beardless figure: two of the figures, habited in long robes, are discharging arrows at the citadel; whilst the third, who wears a short tunic, holds in his right hand a dagger, and with his left sustains a high moveable breastwork, which extends from the ground to considerably above the heads of the besiegers, who are thus effectually screened. Immediately in front of this breastwork are three trees, two being of the palm kind, which are growing out of what we assume to be water, if the same conventional mode of representation is carried throughout; but, as it is not the nature of such trees to grow in water, and the termination is singularly abrupt, we conclude that there is no intention to signify a city surrounded by water, but that a stream has been suddenly turned against it by the enemy. Only one man is upon the walls, and he is discharging his arrows at the besiegers.



Fig. 2.—HEAD UNCOVERED.

This relievo (the one engraved) is a continuation of the attack, and most interestingly indicates that the military operations of this early period closely resembled those of the present day, for the assailants are fighting in ranks under cover of a moveable wicker breastwork, and immediately before the troops is a war-engine on wheels, and covered by a hanging. This engine is impelled against the walls up a levelled

roadway on the rocky ascent upon which the city is built; and the two spears attached have already effected a breach in a tower, upon the top of which a man stands with hands extended, as if asking for a truce. In front of the walls, and within view of the citizens, are three men impaled, as a warning to the besieged; and below, as if fallen from the walls, are a dying man and a headless body, the head having doubtless

battlements, displaying equal and fatal carnage, as is intimated by the dead falling into the ditch beneath.

The next frieze might, in the order of subject, conclude the history of the last described, as it represents a city built in a plain, and may therefore refer to the same conquest. The city contains a high citadel, and the walls are defended at regular distances by towers, both towers



Fig. 3.—FIGURE OF A KING.



Fig. 4.

been removed for the purpose of numbering the slain, as in modern eastern warfare. The shield-bearer, as in the last frieze, is clad in a short tunic, whilst the bowman wears a long fringed dress, and a breast-plate: both have a form of cap not before shown on these remains. This slab having been curtailed on the right side, the rearmost figures are only partially indicated, and cannot therefore be described; but, like the last, it shows the cramp and drill-holes by which it was secured to the wall, and to the slabs above.

The third frieze is unquestionably the final assault upon the city, the citadel of which is strongly fortified by double ranges of embattled walls, the lowest even being higher than a full-grown date-tree seen on the outside. The city is built in a plain, and surrounded by a moat. The determined activity of the besiegers is shown by the artificial earth-work which they have raised to elevate their wheeled tower and enable it to command the walls; whilst, farther off, the soldiers are felling the fruit-trees, devastating the country, and advancing with spear and shield. The fight is vigorously maintained on both sides; the bowmen in the moveable castle, and the besieged behind within the

and walls being surmounted by battlements, and farther protected by a moat. All the entrances of the city are closed, but against the principal gate are directed two of the before-mentioned moveable war-engines, though apparently inactive, as there is no one to work them; neither are there any people within the city, where the only thing visible is a solitary date-tree in full bearing. At a short distance outside the walls, and as if issuing from some unimportant gate, is a car, drawn by oxen, and conveying a young man, with, for the first time in any of the sculptures that we have seen, a woman and child carrying household utensils; the whole design intimating, as we conceive, the total desolation and abandonment of the city, neither man, woman, nor child being left within it; "And behold this day they are a desolation, and no man dwelleth therein." (Jeremiah, c. xlv., v. 2.) In the space above the car stands a man attired in a long fringed robe and other particulars of the costume of the subjects of the Great King, carrying a wand, from which we infer he is a herald or messenger, and that the evacuation of the city is not a voluntary act, but by command of the conqueror.

The fifth relieve represents a beardless person introducing four

bearded prisoners, whose hands are tied behind them. The hands and a foot of another figure are seen behind, showing that the slab is imperfect; and, on examination, we find that the side, top, and bottom mar-

be seen, by the accompanying engraving, Fig. 7, that the men are all unencumbered by clothes or accoutrements, which, as well as the war-chariots, are being conveyed in boats; the horses, likewise relieved of all trappings, are guided by swimmers, all of whom, whether soldiers or grooms, are supported by skins, which they hold with the left hand, and inflate as they progress, the right hand being used to propel and direct their course. Immediately preceding the boat with the chariots is another rowed by two men, and containing domestic furniture.

The succeeding five reliefs represent winged men, or divinities, two of them holding in the left hand a basket, and presenting with the right a pine cone; the dress and attitude being precisely like that of the larger divinity we formerly described. Of the remaining three, two only have the horned cap, whilst the third has a circlet of rosettes round the head. The right hand of each is elevated, as if in the act of prayer; and the left holds a branch of five pomegranates dependent from one stem—a symbol which may indicate that this divinity has some affinity to that of Damascus, in whose temple the King of Syria used to lean on the hand of the captain of his host, in prostrating himself before the idol; as the word "Rimmon," the name of that divinity, signifies "pomegranate." (2 Kings, c. v., v. 18.) This apparent relationship to the divinity of Damascus would lead us to infer that these figures are from a more ancient palace, or at least an older part of the same structure, than that in which the vulture-headed god was found; nevertheless, the style and freshness of the sculpture lead us to draw an opposite conclusion, and to conjecture that this pomegranate-embellished divinity, became the prevailing worship after the death of Sennacherib, perhaps during the reign of Esarhaddon.

The twelfth frieze represents two of the cavalry of the Great King, armed with bows and spear, and wearing the conical cap with ear-pieces; coats of mail, or breast-plates; their legs encased in chain armour, over which they wear boots: each holds the reins of his horse in the left hand, in readiness to mount at the word of command.

The thirteenth frieze displays another division of the King's army, likewise awaiting the word of command. The appointments resemble those of the last, excepting that they carry a sword in addition to the bow and spear. "The horseman lifteth up both the bright sword and the glittering spear." (Nahum, c. iii., v. 3.)

The background of both these slabs is entirely covered with a succession of regular conical figures, like a diapering, and here and there a stunted tree. We conceive that the intention is to signify a mountainous and barren country, its great extent being indicated by the whole background being covered, hill after hill filling up the space as far as eye can reach. It is worthy of remark that no horse is represented on Egyptian monuments before the building of the Temple of Karnak, and that we do not know of any representation of Egyptian cavalry whatsoever, though a stray horseman or two are occasionally met with amongst the long-robed enemies of the Pharaohs in the battle scenes upon some of the temples.

The fourteenth frieze contains a Bowman, with his shield-bearer; and behind them is a rank of slingers, bearded, and their robes having a pendant fringe unlike any we have before seen on these sculptures. The slingers are armed with short swords, and each holds a stone in his left hand, ready to supply the sling. The Bowman is clad in a conical cap with ear-pieces, breast-plate reaching to the waist, and greaves. His companion, the shield-bearer, is in similar costume, except as regards the greaves and beard. The shield is curved, and the top and bottom are protected by sheaths.

The rest of the friezes consist of the following fragments:—A bearded head, with a rose-decorated fillet—the black point of the hair and beard still remaining; a well-executed head of the King; the King, his umbrella-bearer, and charioteer; head and neck of a colossal human-headed bull, with wings. Similar figures have been found at the entrances of the chambers of the assumed palaces of Nimroud. The legs of another of these bulls are in the present collection, the head having arrived with the first importation. The head and shoulders of an individual of the conquered nations, wearing a turban of three folds, bracelets, armlets, and ear-rings: he has a short beard and woolly hair; his hands are upraised in the attitude of awe and submission in the presence of the monarch. And, lastly, the head and shoulders of a beardless man, whose robes are richly embroidered.

Having thus completed the details of the friezes, we now turn to that monument which has excited the most curiosity and expectation, as being at once the most novel in character, and interesting and comprehensive in itself—we mean the Obelisk, one side of which our artist has selected for particular examination (see fig. 8). The Nimroud Obelisk is 6 feet 6 inches in height; the greatest width at top, 1 foot 5½ inches, and at bottom 2 feet—the width of the two sides being rather less. The marble of which it is made is most defective, and traversed throughout its length by a broad vein of lightish heterogeneous matter. However interesting as a historical record, as a work of art it is by no means comparable to any Egyptian obelisk, or to that of the



Fig. 5.—FRAGMENTS OF COLOSSAL HORSES' HEADS.

gins, have been chopped off! It is unnecessary to describe the dress of the beardless figure, or eunuch, as it is the same as we have so minutely detailed in our former papers; but his attitude is quite different, the

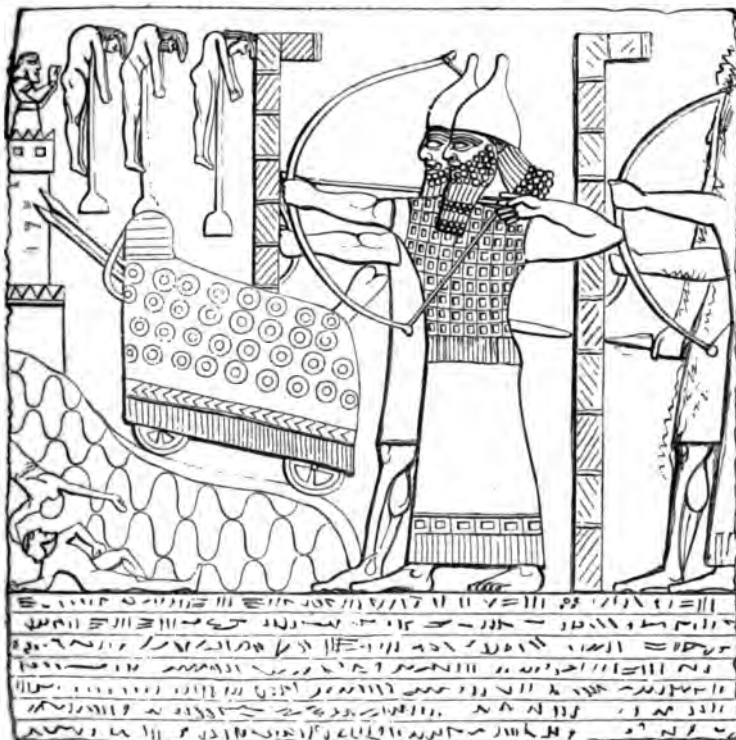


Fig. 6.—THE SIEGE. IMPALEMENT OF PRISONERS.

left arm being raised, as if commanding a halt in the presence of some superior, who, we may suppose, would be found in the adjoining frieze. The prisoners are simply habited in a short kilt, having neither cap nor fillet on the head, nor sandals on the feet. The whole execution of the work is of the rudest character.

The next frieze gives us a novel and most interesting scene—the passage of a river by the army of the Great King and his allies. It will

Fayoum, which contains quite as many figures. We have but to point out the want of precision, the feeble and slanting lines, unequal spaces where the contrary was intended, and the paucity of invention. The figure of the monument, it will be seen, is not exactly that of an obelisk, for the top is surmounted by three steps, and it is not square in plan; each side is divided into five compartments of sculpture, with cuneiform characters between and at the sides; and the base, for 16 inches in height, is surrounded by entablatures of cuneiform inscription, ranging from twenty-three to thirty-eight lines.

The view presented by our Engraving conveys the front and most important face of the Obelisk, the first compartment of which represents the Great King, attended by his eunuch and bearded domestic, the captain of his guard, receiving the homage of a newly subjugated people. He seems to be in the act of presenting two arrows and a bow, as insignia of office, to the person who stands erect before him, and who, we may suppose, is thus invested with the government of the province. Between the king and the satrap are two peculiar emblems, the one resembling the winged globe of the Egyptians, the other a star surrounded by a ring: similar emblems occur on other sculptures from the same place, and on the rocks of Nahr-el-Kelb. We conceive one of these emblems to be a contraction of that figure of the Divinity which accompanies the king in battle on one of the large reliefs; but why attended by the globe, which in the next compartment is on the reverse side, we cannot imagine, unless it is intended to signify a presentation of tribute so vast as to occupy from sunrise to sunset.

The second compartment contains the same number of figures, and the arrangement is likewise similar, except that the eunuch behind the King holds an umbrella, the token of sovereignty, and the place of the satrap is occupied by the cup-bearer, with his fly-flap.

The third compartment contains two men, the one leading, and the hindmost driving a camel of the two-humped or Bactrian kind. The dress of the men is that of a people with whom the King has been so often, in previous sculptures, shown to be at war. It consists of the fillet round the head, and short tunic; the feet being without covering. In other compartments of this monument this people are bringing elephants, monkeys, and baboons.

The fourth compartment represents a forest in a hilly country, occupied by deer and wolves; and intimates, as we suppose, the vastness of the dominion of the Assyrian monarch, which extended not only over the people, but over the forest and mountains inhabited solely by wild beasts. "And whosoever the children of men dwell, the beasts of the field and the fowls of the heaven hath he given into thine hand, and hath made thee ruler over them all." (Daniel, c. ii., v. 38.)

The last compartment on this side of the Obelisk exhibits a people we have not heretofore seen on any of the sculptures. They are a short-bearded race, and wear a peculiarly-formed cap, the end of which is turned so as to fall over the back of the head, like a Phrygian cap put on hind-side before. The rest of the dress consists of long robes and boots, the same as those who are prostrate at the feet of the King in the first two compartments. They resemble a people shown on the north wall of the Temple of Kalabshe as enemies of Rhamses II. In the present compartment they carry precious wood or bars of metal, baskets with fruit, bags, and bundles; but on others the tribute consists of camels, fringed cloths, and vases of various forms and sizes.

We are satisfied that the purpose of this monument is specially to commemorate the conquest of this new race, and the attitudes of the figures strongly confirm our conjecture; the prostrate position in the first two compartments, and the awe-stricken and supplicatory actions of those who head the processions of tribute-bearers being all indicative of respect or fear, as exhibited in the bended back and knee, which, as they advance, is exchanged for the prostrate posture of homage. The inscription beneath contains twenty-three lines.

The first compartment on the left side of this monument contains a bearded and beardless figure, together with a groom, in the costume of the newly-conquered race, and holding a richly caparisoned horse, the property of the newly-elected governor, and his followers carrying tribute in a richly ornamented box or basket.

And the third compartment represents a bull decorated for the sacri-

fice; a straight-horned ox, and an animal of the gazelle kind. None of these animals are either led or held; and as the leader is prepared for the sacrifice, we may surmise that they do not appear as tribute, but an



FIG. 7.—THE PASSAGE OF THE RIVER.

evidence of the abundance in the king's dominions. And as it was the custom to sacrifice to the gods those animals destined for the King's table, the bull, the chief of his class, is typically so decorated.

The three remaining compartments of this side, as well as the ten of

the two other sides, are all occupied by the bearers of tribute, consisting of animals and precious substances, which our limits will not allow us to detail.



Before dismissing our description of this collection of these curious sculptured remains, we must draw attention to a fact of great importance,

as it affects their historical value: we think it has but to be named to excite universal attention. We allude to the fact, that in many cases the whole of the cuneiform characters beyond the margin of the designs has been cut off. We know not whether this act of desecration has been committed through ignorance, or from a supposition that there was no prospect of decyphering; and though, as yet, little besides a few names and the numerals have been made out, we have every reason to believe that the investigations of intelligent men, both here and abroad, will, ere long, afford some successful results; at all events, with the Rosetta Stone before our eyes, we cannot refrain from animadverting upon an act which, considering how few and interesting are the sculptures we can obtain from Nimroud, may involve so serious a loss in the history of that interesting part of the world, and therefore call upon the authorities at home to give such instructions as will prevent the recurrence of similar acts of destruction by future excavators.

A VISIT TO MARSDEN ROCKS.

DURING a short sojourn in the North, some few months since, we availed ourselves of the opportunity of being in the vicinity of the celebrated Marsden Rocks, to visit a scene, which, for its beauty and romantic interest, is the most popular place of resort for the townsmen of Newcastle, Shields, and Sunderland. It is a place peculiarly attractive, and well merits the favour in which it is held by the picnic parties and quaint pedestrians who make it a shrine of pilgrimage. It was a bright but cold day when we set out with our guide from the smoky town of South Shields to the beach at Tynemouth. The sea was comparatively calm; and the breakers which leaped in between the crags and spent themselves upon the shelves and tables of loose rock were of sufficient magnitude to please the eye with their foam, and the ear with their rich bass music, without inspiring fear or abridging the safety of a walk upon the sand. Starting from the "bar" of the Tyne, along the low flat beach, we soon arrived at the first series of rocks which jut out successively along the coast and form a number of small bays, separated from each other by headlands or rocky heights, running out into the sea as if to battle with it and check its inroads on the land. At the first cliff we were amused by the many bright and sparkling land-springs which gush from above them and trickle down in rivulets to the sea, marked all through their progress by fringes of the most elegant moss, and by the strange water-worn hue of the stones over which they pass. Numerous caves and grottoes were to be seen, into which the sea waves bubbled up with a sound sometimes like church music, sometimes like the tolling of a bell, and frequent like thunder broken into gushes and deep hollow moans. A curious chamber in the first bay, called the "fairies' home," attracted us, and climbing up the green and slippery archway into a dark hollow, within which we could hear the continuous roar of the surf outside, we discovered a little fountain of fresh water, which flowed over the smooth floor of the cave and coated it with a delicious emerald green, and after gliding over a ledge, formed a series of bright green pools in several saucer-like hollows on the floor of the lower chamber, where a low singing sound caused by the ripple of the water had given rise to a legend that the cave is inhabited by fairies, and that these hollows are the "fairy cups," and the low murmur of the water the singing of the "fairy kettle."

Traversing the coast from this point, and passing innumerable objects of interest, such as fossil sea-weeds in the laminae of the magnesian limestone, strange heaps of sea-weeds cast up by the tide, boulder stones and honeycombed rocks, over which the breakers leaped like wild creatures sporting with each other, we came at last to Marsden Bay, the special object of our journey.

Marsden Bay is about five miles from Sunderland and three from South Shields. It is in the form of a segment of a circle, and commands a magnificent view of the mouth of the Tyne and the wide expanse of the German ocean. The rock forming the coast is magnesian limestone, on which the sea is continually encroaching, and the many hollows, caves, and headlands, which give this bay so picturesque an aspect, are the result of the continued action of the waves upon a stone which yields readily to their influence. At the northern extremity of the Bay the escarpment is composed of knobby protuberances of hard blackish rock, stretching seawards at a low level, and forming a number of stepping stones, on which those who have courage enough may walk a considerable distance out into the sea. The cliff is above a hundred feet in height; above it the land stretches away covered with furze and low brushwood, and below on the sand the aspect of the jagged, honeycombed, and laminated cliff, of a buff or ochreous colour, fringed at top by a green edging of grasses, sea-thrift, and sea-camomile, is delightfully picturesque, and at some bold points almost grand. There are several wave-worked caves supported by strangely-moulded columns, and covered with crystalline incrustations: and at one point, called the "velvet beds," a number of flat rocks lie almost level with the low tide, covered with sea-weeds of a most delicious emerald green, and forming a series of tables, polished, slippery, and leading far out at low water, and commanding a most imposing view of the sea and the surrounding rocks. It is from this point we first get sight of the chief attraction of Marsden, and enter into a region of romance full of the most entrancing interest. Here is a kind of hermitage built into the face of the rock, which looks as if inhabited by monks and friars of the olden time; and several large dogs prowl about as they do around St. Bernard; and one

can easily imagine that the holy men send them forth to look for bodies that are cast upon the strand, or to rescue from the waves unhappy fishermen who have been wrecked. On every hand rise up new objects of attraction. As we near the hermitage or cave of the renowned Peter Allan, we get a closer view of its structure, and find that it has all the characteristics of an English homestead, instead of being, as it at first appeared, a mere hole for the shelter of an anchorite. Against the face of the cliff a structure of wood has been erected and windows formed, so that the rock itself forms the body of the house, while the timber frames of the windows appear to be let into it, or built round the openings which form the windows; and in front of this is a series of wooden erections, serving as domestic offices for poultry, dogs, pigs, and pigeons, and in addition to all this a miniature and model inn. It is a strange place for an inn; the rocks tower above it, crowned with gorse and brushwood; the sandy beach lies in front, and the broad sea with its rolling and roaring surf all round, except behind, where the rocks in which the house is built support the mainland. As may be expected, this place has been the scene of some very strange exploits, and in days when smuggling was more rife than now, there is no doubt that it was resorted to as a natural stronghold, inaccessible in many parts except to those adept in its intricacies. Content, for the present, with the outside survey of Allan's cave, we look around us at the many strange features presented by the cliffs, which are equally instructive as to the freaks of nature and the ingenuity of man. In front of the cave rises up a large square table-rock, which seems as if separated from the mainland by the action of the sea. Below, this rock is cut into numerous caves and arches, through which, while the tide is out, we may get beautifully formed views of the sea with the shipping passing to and from the Tyne. Into these hollows and arches the sea surf bubbles up with a grand and unceasing roar, and now and then the salt spray splashes in your face as you enjoy the quaint beauty of these pictures formed in the circular openings of the rock. Very near the cliff is an obelisk, called "Pompey's Pillar," of a most beautiful structure, formed of a series of slabs with transverse surfaces, each belt cut like a honeycomb, and presenting features truly architectural, though truly natural. On the east of the pillar is a huge tower-like mass, dilapidated and broken, and standing all awry, "as if some invisible giant supported it in his cloudy arms." Another isolated column close by is called "Lot's wife," it is a tall slender mass, composed of broken laminae of limestone, each separate plate or stratum being about an inch in thickness.

After this survey of the neighbourhood, we turn back to the cave, inn, or hermitage, of which, while the tide is low, we can have a full view from the sands. Its height is two stories, with a white façade of built stone. Part of the roof projects from the rock, and is slated. Balconies are attached to the upper story for the accommodation of those who wish to enjoy the sea breeze and the view of the harbour. On one side stands a wooden raven on a pole, and on the other side a dove-cot surrounded by its cooing inhabitants. Pigs, fowls, and dogs loiter about, and with the house and its human inhabitants compose a sort of miniature world, separated from the other world, and shut within itself and encircled by the sea. Beyond the cottage and model homestead is a row of windows in the face of a dark rock, which look like rough-hewn belfries, and are the windows of the "ball-room," which is resorted to by picnic parties. Entering this curious habitation, we are astonished at the extent to which the rock has been hollowed out into chambers and adapted in so many ways to the comfort of a family living in this Robinson Crusoe style, and cut off, as it were, by the rocks and the sea, from the whole circle of humanity. In the front bar we meet with Mrs. Allen, a good, gentle, but courageous soul, who has saved many a poor wretch from drowning. She is a widow, for the renowned Peter is now represented by his eldest son William, who dwells in the cave, and occupies himself in excavations and improvements. Her daughter, a brunette, and a good shot, full of gaiety and courage, also resides with her, and is ready at any time to enliven the hearts of visitors with her merry, social prattle, to shoot sea-birds or sparrows for a pie, or to perform such feats on the sea when a storm rages as we have already become familiar with in the history of Grace Darling. Upstairs is a portrait of Peter, painted by Mr. Reay, of North Shields, and which represents a man in the prime of life, with fresh hearty complexion, and a peculiarly twinkling eye beaming with good-will and benevolence, and laughter. Near the portrait is a pair of jet black ravens, stuffed, which in Peter's lifetime were his favourites, and one of which, with only one leg, is represented by the wooden raven which stands on a pole at the door. This is "Ralph," who lost his leg by an unlucky shot from a sportsman who was ignorant of his ownership. He had lived fourteen years in the grotto, and was killed by a greyhound in whose kennel he habitually roosted. Underneath are some doggerel lines to the memory of Ralph, printed in gold on blue paper. A side door in the bar conducted us to an inner room, in which is a large limestone slab measuring about six feet by four, and about five inches thick. The upper surface is polished, and is covered over with wavy lines like watered silk or Castile soap; and the edges are cellular and resemble lace-work. It is in a dark place, and hence cannot be seen to advantage, but is a decided curiosity, both to the casual observer and the geologist. Other rooms are known as the "gaol room," the "Devil's chamber," the "circular room," the "dining room," and the "ball room." There are, in fact, fifteen rooms hewn out of the solid rock, and this by the labour of that prince of Crusoes, Peter Allan. The height of the entire excavation is twenty feet, its breadth

thirty, and its length, from the "ball room" to the cottage, one hundred and twenty. The "ball room" is the most curious of any: it is a large room or cave supported by pillars, with a planked floor and a rafted roof, with a balcony for musicians, and a large excavation at one end which has not received a single improvement, but exhibits the original roughness of the rock and the marks of blasting and excavating by which it was originally formed. This forms a cool retiring place for the dancers, where young lovers may have moments of stolen bliss; where vows may be whispered and kisses stolen, and, perhaps, many a happy match constructed within the hearing of the beating surf outside.

Previous to the occupation of these rocks by Peter Allan, one "Jack the Blaster" had made a home here and commenced the excavations. A cavern close to Allan's house is said to have been occupied by him in 1782, and the object of his coming hither and furnishing a cave for himself and wife is said to have been a desire to avoid the expense of house rent. A large circular hole piercing through the roof of this cavern into the mainland above, is known as "Jack the Blaster's" hole, and we were told that many tons of contraband goods had found their way to the shore through this aperture, having been hauled up from a boat below when the sea entered that part of the cave at high tide. Respecting Allan himself, we learnt that he was a Scotchman by birth, and in early life was valet to Mr. Williamson, brother of Sir Hedworth Williamson. He afterwards became gamekeeper to the Marquis of Londonderry, and in that capacity acquired his reputation as a fearless and unerring shot, which he enjoyed to the last hour of his life. He afterwards married, and became a publican at Whitburn, where he purchased some property and occupied himself in the superintendence of dock-works and stone quarries. He was a speculative man and fond of adventure, and having had much experience in mining operations, he conceived the idea of founding a colony at Marsden, and shortly afterwards set up a tent in the lane which leads to Marsden sands. He had an eye to business though, and determining to make his wild adventure "pay," it is said that he sold ale and porter under his tent in the lane, and attracted as many persons as he could to the spot, in order to profit by their admiration of his project. He soon excavated several rooms in the rock, and fitted them for temporary accommodation. He was opposed by the proprietors of the adjoining land, and annoyed by the excise. At last he obtained a licence, and set about the foundation of an inn. Rumours went abroad that Peter was engaged in smuggling, and a body of officers assembled at his door while he was from home. Peter arrived, and found these gentry coolly smoking their pipes in front of his grotto, and, seizing his gun, he dashed into their midst, and discharged several charges of powder at the clouds, and effectually cleared the ground of the official jackals.

Improvements still went on, and, by the aid of assisting miners and pitmen, new rooms were formed with rapidity. A vast number of human skeletons were discovered in the course of the excavations—one of which, measuring six feet in length, is now suspended in the laboratory of Dr. Cargill, of Newcastle. At last the grotto was completed, and Peter and his wife took up their abode in it, and it soon became known as a place of resort for the curious, and of novelty to the pleasure-loving. The chief difficulty was to contend with the sea, which in stormy weather frequently threatened to wash away the contents of the hermitage, as well as the inhabitants; and upon one occasion the family was put to great shifts owing to a fall of snow, which blocked them up in the hollows of the rock for six weeks, during which time it was impossible for any human being to approach them. Still Peter and his wife lived happily and comfortably, and reared a family of eight children, three daughters and five sons, all of whom are now prospering in the world, and are known for probity and industry. In addition to the excavations in the cliffs, Peter took possession of the great rock opposite the grotto, and endeavoured to convert its barren surface into a paradise. The surface of the rock contains upwards of three quarters of an acre, and was then much frequented by sea-fowl. The latter were thinned, and at last expelled by Peter's dead shots, and rabbits substituted in their place. In the course of a fortnight, Peter and two assistants excavated a passage from the land side of the rock through its substance to the surface, and placing scaling-ladders against its face, provisions were made for ascent, and during the progress of the work, a tent was erected on the top, adorned with flags and green boughs, and here the three pioneers resided, receiving their food in baskets hoisted up from below.

In character Peter is represented as having been a bold, determined, but most honest man. He was a jovial fellow, loved a joke, verbal or practical, and could "spin a yarn" by the winter fire as well as any cannie Scot. He possessed a lively fancy; and those who knew him will never forget his clear bell-like laugh. He was passionately fond of animals; kept bees, pigeons, and pigs; and when he travelled into any of the neighbouring towns, was usually seen attended by a favourite sow and a litter of young porkers, which followed at his heels like dogs. An anecdote, illustrative of his merry mood, is frequently told of him, in which he ridiculed, most effectually, a pair of duellists. In 1842, two gentlemen of Sunderland, having quarrelled, met at Marsden Bay for "satisfaction." The pistols were fired without effect, and a reconciliation took place. A fortnight after, one of the combatants found his way, as a visitor, to the grotto; and while chatting with Mrs. Allan, some one cried out, "Where is the cotton-ball?" Mrs. A. endeavoured, by pantomime and frowns, to silence the questioner, but the visitor coloured up at the question, and demanded an explanation. "Why," said Mrs. Allan, "it is the cotton-ball you fired at Mr. —, or Mr. —"

fired at you." "The cotton-ball!" exclaimed the other in alarm. "To be sure; and there it is!" at the same time producing a bottle, in which was corked up a cotton-ball, labelled, "A penny to see this!" The cat was out of the bag, so the unlucky duellist laughed at his own expense, and improved the joke by insisting that sixpence should in future be charged; and the result was that thousands flocked to see it, to the profit of Allan, and the wide diffusion of the moral lesson. It is painful to know that Allan's career was checked by a law suit, and that the vexation arising out of this cut him off in his prime. After twenty-two years' possession of his rocky territory, which he had completed with so much enthusiasm and toil, he was ordered to quit by the purchaser of some land adjoining the rock. Peter would not budge an inch, and proceedings were commenced against him; at the termination of which he was called upon to pay the costs of the suit, and suffered to continue in his stronghold. This attempt to "drive him and his family to the door," as he called it, broke his heart, and he returned home from the court, broken in spirit and in health. His melancholy increased daily, and he died on the 31st of August, 1849, in the 51st year of his age, leaving his wife and eight children to lament him.

As the noblest of stoics he died
With his wife near his bed, and his bairns on his knee;

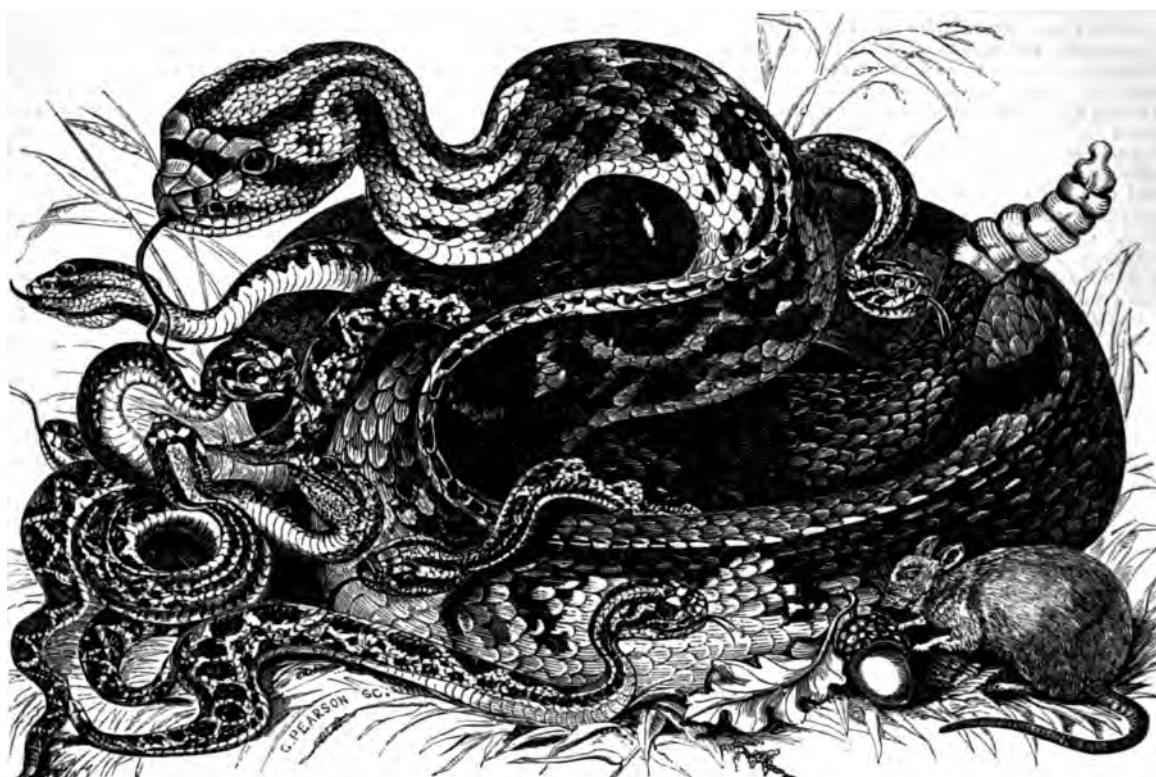
He had drunk of the hemlock that law can provide;—
And now he lies cold as the surf on the sea.

He was buried in Whitburn churchyard, and over his grave a stone was placed bearing the inscription—

The Lord is my rock and my salvation.

Owing to the lowness of the tide we could not ascend Marsden Rock; but we stood under the natural bridge which the waves have cut in its foundation, and looked out at the shipping and the sea, and fancied, as we heard the low bass voice of the chafing surf, that it was singing a requiem for Peter Allan; and when its waves broke in multitudinous splashes on the rough surface of the rock it seemed as if the sea was kissing the place he loved. We gathered a few memorial stones, and several specimens of flexible limestone; and ascending the flight of stairs which Peter erected to communicate with the land above, we gained the meadows, took a farewell glance at the grotto, and fifteen hours after trod the streets of London.

[Since our visit to Marsden we have met with No. 2 of "Summer Excursions in the North," published by Ward, of Newcastle. This gives a full and pleasing account of Marsden and Peter Allan; and to it we are indebted for several facts which we had failed to learn on the spot.]



RATTLESNAKE AND YOUNG IN THE MENAGERIE OF THE ZOOLOGICAL SOCIETY.

RATTLESNAKE AND YOUNG,

AT THE GARDENS OF THE ZOOLOGICAL SOCIETY, REGENT'S PARK.

THE female rattlesnake and her brood, in the Zoological Gardens, were presented to the Society by Captain Mackenzie M'Luckie. This gentleman, we are informed, succeeded, during his late visit to Berbice, in obtaining a pair of adult Cascavel rattlesnakes, of which, however, the male effected his escape before the case containing them was put on board ship. During the voyage homeward, the female produced a brood of nineteen young ones, of which about one-half were a few days since living in the Society's menagerie. We believe that the present instance is the first on record of young rattlesnakes being seen alive in this country; indeed, the peculiar habits of the adult render their successful treatment in captivity so difficult, that very few examples have survived their importation.

The sound of the rattle, of which so much has been said, and which has given rise to the popular name applied to three or four species of venomous serpents of this form, may be very distinctly heard whenever the attention of the mother is attracted. There appears, at present, to be no indication of it in the young. This very interesting group is well placed in a case of plate glass, which admits of their being observed minutely, and without danger.

Towards the close of 1847, Dr. Wainwright, formerly a captain in the British service, but for the last ten years a physician of eminent

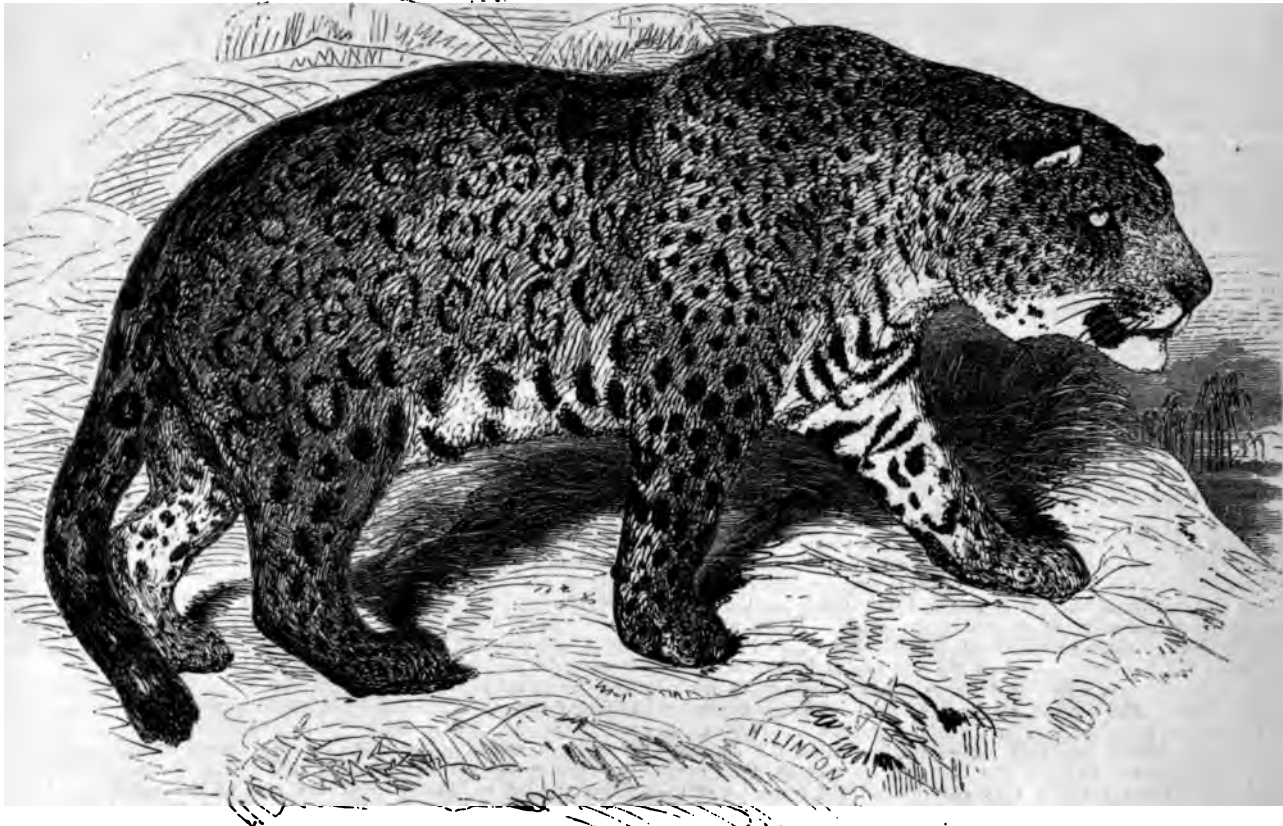
standing in New York, met a melancholy death by the bite of a rattlesnake. The American papers supplied many particulars respecting the singular catastrophe. The snake was about five feet in length, having twelve rattles. It was contained in a box with spars over the top. "The Doctor was on his way home from the ship with the present, but stopped at the Broadway-house to show the curiosity. The company present seemed to enjoy teasing and irritating the snake, while the reptile kept whizzing its rattle at a furious rate. The box was opened; and now there being a fair field, the reptile kept coiling and rearing itself in fierce defiance of its enemies. This display lasted some time; when Dr. Wainwright touched the snake a few inches below the head, expecting that it could not bend its body sufficiently to bite. In a moment it snapped, and inflicted a wound on the first joint of the middle finger of the right hand." A superficial excision of the part was immediately made, the wound was cauterised with nitrate of sulphur, and a ligature was applied above the wrist. The hand began to swell immediately after the occurrence of the accident; and the poison progressed rapidly in its course to the forearm and arm. But no constitutional symptoms seem to have made their appearance until it reached what the faculty technically term the "axilla" or armpit; when immediately the pulse began to flag, and, notwithstanding the continual application of stimulants, the pulse never rallied until about 12 o'clock P.M., when death put a period to the doctor's existence.

THE JAGUAR IN THE ZOOLOGICAL GARDENS.

THE Jaguar, presented by her Majesty, some time ago, to the Zoological Society, is perhaps the finest specimen of the breed which has ever been in this country, excepting the celebrated animal formerly in the Royal collection at the Tower.

The Jaguar (*Felis onca*) is the most formidable of the cat tribe which

inhabits the new world. He is considerably larger than the leopard of Africa and Asia, and more beautifully marked with larger spots, or rather roses, which nearly unite in a continuous line along the back. He climbs and swims with the most perfect facility, and is sufficiently powerful to carry off horses and oxen, although he seldom ventures to attack man. As population advances the Jaguar is now more rarely met with, although formerly he ranged in numbers from Paraguay to Guiana.



THE JAGUAR.

FREMY'S PATENT GLASS-PAPER MAKING MACHINE.

THE rapid spread of machinery has created a vast demand for the apparently insignificant articles of glass and emery paper and cloth, and we believe we are correct in saying that a large fortune has been made by one firm to whom the credit of introducing the emery cloth is due. The machine we are about to describe appears adapted for the manufacture of emery paper rather than of cloth, and will be found interesting to our readers, many of whom, probably, like ourselves, have used that article, so useful in the workshop, by the quire, without ever thinking how it was made. The machine we are about to describe is that constructed by M. Frémy, of Paris.

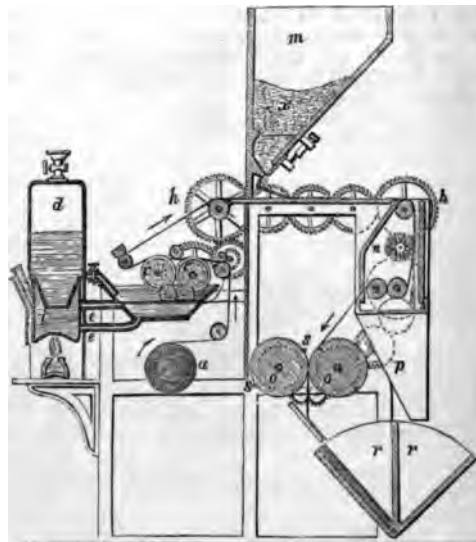
Machine-made paper, by the new process now in use, is produced in a continuous web, which, for ordinary purposes, is cut up to the desired size by a cutting-machine. In the case before us, it is kept in its continuous form, but cut to a suitable width for the "emerising" machine. In this machine it has to undergo the following processes:—First, it is smeared with size; secondly, the superfluous size is wiped off; thirdly, the emery, or glass, is distributed over the sized surface; fourthly, the superfluous emery is shaken off; fifthly, the web of paper is cut into sheets; and sixthly, these sheets are deposited in a receptacle provided for that purpose. A glance at the drawing will show how these operations are performed.

Our figure represents an elevation of the machine, in section; *a* is the web of paper mounted on a roller, from whence it travels in the direction indicated by the arrows over the rollers *c c*, with which it is kept in contact by a third roller over and between them.

These two rollers are covered with felt and dip into a vessel containing the size. This vessel has a double bottom, the lower part communicating by two pipes, *e e*, with a hot water-bath, *f*, which is heated by a lamp, and serves to keep the size hot in the vessel before-mentioned, and also the reservoir of size, *d*. The paper thus smeared with size passes between a roller and the rubber, *g*, which removes the superfluous size which drops into the vessel beneath. The rubber is made of an elastic material, and is covered with felt. The paper then passes in the line, *h h*, over a table, where the sand or emery is distributed over it from the hopper, *m*, which is provided with an adjusting

plate at the lower extremity to enable the supply to be regulated. A wire screen, *x*, prevents any coarse particles from passing.

The paper is then subjected to the action of the revolving brush, *n*, which shakes off the superfluous material, which falls into the receiver,



p. The rollers, *o o*, perform the measuring and cutting operations, one of them being furnished with the cutters, *s s*, and the other with corresponding grooves. As the paper passes between the rollers, it is divided transversely by the cutters, each sheet being of course equal in length to half the circumference of the cutting roller, and the sheets thus formed fall into the receiver, *r*. This has two compart-

ments, and can be moved on its lower corner, so as to bring either of them into the requisite position to suit the delivery of the sheets. A self-acting motion is given by means of a balance weight, which is lifted by the weight of the sheets in one compartment, and releases a detent which allows the receiver to fall over, and the sheets to be removed, whilst the other compartment is filling. As the paper is damp when it reaches the cutters, and would not readily keep in shape, two fingers are provided, one at each end of the grooved cylinder, *o*, which take into the grooves, and in the revolution of the cylinder, press the paper firmly against it. They are acted upon by a weight, which is released just at the moment when it is required to permit the paper to fall on the inclined plane of the receiver.

The material which accumulates in the receiver, *p*, is in some of the machines removed by an Archimedean screw, and so raised into the hopper, to be used over again.

All the rollers are of course connected together by wheelwork, to give them the requisite velocity and direction. It is obvious that, in setting the machine to work, a length of paper equal to the distance between the first and last rollers, must be passed through the machine before it can be started. In order, therefore, to save this piece of paper from being wasted, the cutting roller is thrown out of gear, and the sand shut off, so that it passes through without being cut or sanded, and being of a stronger kind, it can be used over and over again, by being glued on the beginning of the fresh web of paper. Instead of using a roll of paper as *a*, it may be fed in, so that before the end of the web has passed into the machine, a fresh web can be glued on, so as not to stop the machine, except in the case of an accidental breakage of the paper.

CHINA.*

WE had lately occasion to draw the reader's attention to Japan, its closed harbours and its peculiar manners. We have now something to say on CHINA, and her Majesty's late plenipotentiary there, governor and commander-in-chief of the colony of Hongkong, whose volumes just published are as authoritative as they are interesting.

Into the motives of the war of England with China on the opium question it is not our cue at present to enter. In an appendix Sir John Davis presents us with an official letter from Lord Palmerston explaining and justifying them; on the principle of international law which authorises the resort to force, to extort redress when denied to negotiation. The account rendered by Sir John Davis represents the Chinese as mere children in the arts of warfare and politics. In the latter we should say, they are evidently behind the Japanese. The Socratic maxim, to think the best of your enemies, they never appreciated. From the first they undervalued the resources of the British, and at least pretended contempt for their power and skill. The reports made to the Emperor were uniformly false and vain-glorious, and the measures directed by him merely abstract orders "to destroy the barbarians." There was no proper estimate of means to the end, nor any due appreciation of the agents employed. The only test applied was success. As they all necessarily failed in destroying the English they were punished and degraded. And this was the only rule recognised at court, combining the ignorance and the petulance of a child. Woo-Tajin, Kesher, Eleopoo, Lin, Teng, Tam, Yukien, Yang, Keying, were the successive victims of imperial tyranny and caprice, commanded to attempt impossibilities, and suffer for failures which they could not prevent. Such is arbitrary power. But when the British attack had advanced on Nanking, Taoukwang, imperial and imperative as he was, trembled for his throne, and yielded to the force of circumstances.

Such a power has no real root in the affections of any people. We learn that the Chinese were perfectly apathetic and indifferent to the progress of the English troops. To take part with their Tartar rulers, and fight for them against the enemy, seemed utterly foreign to the inclinations of the great body of the Chinese people. "Experience," Sir John Davis states, "had shown at Chusan and elsewhere, that even as conquerors the English had spared them more than their own government. No contributions," says he, "were levied in the way of taxation in that island, during the whole period of its occupation; but private property was protected."

Chusan was the first place attacked by the English troops: there the blow was struck rather than at Canton, where the grievance sought to be redressed originated. We have in the first part of Sir John Davis's work, the official papers of the Chinese themselves, captured or otherwise collected during the war, and translated by Dr. Gutzlaff, interpreter to her Majesty's commission; and a curious set of documents they make, containing the reports made to the celestial emperor, and his edicts in reply. The views of English character and enterprise which they betray are almost incredible. Ignorance despising intelligence, and seeking refuge in self-deception and falsehood, might form a fitting title to the whole series of documents.

The "English barbarians" is the usual term by which their invaders are designated. They are described as "full of crafty schemes," as "contumacious," as "mere bulrushes," "moth in the candle," "fish in the net," and "robber who will instantly be put down by the military." These terms of bravado were written by Yukien, the Mongol Tartar, who describes himself as "having from his youth upwards read

military treatises, and spread the terror of his name myriads of miles through Turkestan." In the end he committed suicide, the Chinese remedy for all evils—the self-sacrifice offered to self-assumption.

The following is a memorial drawn up by a privileged person, and used as a text-book by the authorities:—one not a little flattering to our national vanity.

"The English barbarians are an insignificant and detestable race, trusting entirely to their strong ships and large guns; but the immense distance they have traversed will render the arrival of seasonable supplies impossible, and their soldiers, after a single defeat, being deprived of provisions, will become dispirited and lost. Though it is very true that their guns are destructive, still in the attack of our harbours they will be too elevated, and their aim moreover rendered unsteady by the waves; while we in our forts, with larger pieces, can more steadily return the fire. Notwithstanding the richness of their government the people are poor, and unable to contribute to the expenses of an army at such a distance. Granted that their vessels are their homes, and that in them they defy wind and weather, still they require a great draft of water; and, since our coasts are beset with shoals, they will certainly, without the aid of native pilots, run ashore without approaching very closely. Though waterproof their ships are not fireproof, and we may therefore easily burn them. The crews will not be able to withstand the ravages of our climate, and surely waste away by degrees: and to fight on shore, their soldiers possess not sufficient activity. Without, therefore, despising the enemy, we have no cause to fear them. While guarding the approaches to the interior, and removing to the coast the largest guns, to give their ships a terrific reception, we should at the same time keep vessels filled with brushwood, oil, saltpetre, and sulphur, in readiness to let them drive, under the direction of our marine, with wind and tide against their shipping. When once on fire, we may open our batteries upon them, display the celestial terror, and exterminate them without the loss of a single life."

The earliest successes of the British were attributed by the Emperor to the treachery of the natives, many of whom unjustly suffered in consequence. Moral forces were also employed. Thus in relation to Woo-Tajin and the general at Chusan, (the latter a decrepid old man above seventy years of age), the emperor remarked, "The Criminal Board has sentenced both to lose their offices, but this is not sufficient to atone for having allowed the English to take Tinghae. To continue their heavy responsibility, let them still remain in the administration of their functions." Thus many an official person was left with a rope round his neck that he might have an additional motive to exertion.

And this sort of policy, it was supposed, would be sufficient against the military courage and scientific skill of Europeans. The tribunal above alluded to, having tried the case of the officers who were actually at Chusan when it was taken, sentenced the naval commander to decapitation, and the inferiors to transportation beyond the walls; but the former escaped his sentence by dying of his wounds. The only ones who obtained credit were the two that killed themselves. "There is, in fact, no other resource," adds Sir John Davis, "to a mandarin opposed to an irresistible enemy. If he is neither victorious nor slain, *manet sors tertia*,—suicide."

A system like this, as horrible as it is ridiculous, is a fearful commentary on that mixture of arbitrary power and ignorance which constitutes eastern despotisms. It is, however, only an extreme case. All despotisms, however mild, must in a certain degree possess these absurd and awful attributes. The knowledge which it excludes is its ultimate ruin. For a nation to have the full advantage of intelligence, it must have the full measure of freedom. The Chinese government, in denying the latter, has denied all. It matters in consequence very little that education and literature are made the passports to authority. The people are not free, and therefore the waters of instruction are tainted at the fountain head; and knowledge is used for the retardation and not for the acceleration of progress. From the throne downward all was deception and presumption; truth was carefully eschewed in the least as in the greatest instances; had it been permitted anywhere, or can it now force its way into the smallest cranny of affairs to a proportionate extent, it would, and will make the agents employed so far free, and begin a new era in Chinese history.

As we turn over the pages of Sir J. Davis's volumes, we find still the same tale—still the same assumption of Chinese superiority and British turpitude. In a furious diatribe from the emperor concerning Chusan, it is declared that the English had abused the women, plundered goods, erected fortifications, dug canals, and directed a pretended mandarin to levy taxes. "After their outrages at the Bogue," he adds, "there remains nothing but to exterminate them. As gods and men are equally indignant at such detestable beings, their destruction will soon be accomplished." Gods and men neglected to indorse this bill of indignation; and, accordingly, the predicted destruction was not fulfilled. The emperor, from time to time, "commanded the extermination of the English," and was much surprised that his orders were not obeyed. But in all the despatches the imperial dignity was saved as much as possible; all sorts of pretexts being set up for the necessary failures. Thus the governor of Amoy wrote to the emperor, apologising for the loss of the place—"I myself led on our soldiers to battle. We sunk one of their steamers and five of their ships of war by our terrible fire; but the barbarians returned it; the south wind blew the smoke into our soldier's eyes, and Amoy was thus lost!" In another paper it was stated that "the English on their arrival

* China, during the War and since the Peace, by Sir John Francis Davis, Bart., F.R.S. 2 Vols. LONGMAN.

sent many hundreds of Chinese traitors on shore, who fell, (on a given signal), upon the soldiers and killed them;" the Chinese being beat only by Chinese. "This senseless system of lying," says Sir John Davis, "and of dissembling the real facts, had no other effect than to prevent the government from benefiting by experience."

"The consternation," proceeds our authority, "among all classes of Chinese troops after their repeated experience of the effects of our arms, was universal. Their superstition being in proportion to their ignorance, it became a matter of speculation with them whence it could be that the British forces derived their resistless power; what it was that made their aim so unerring, their charge so terrible, and their course so uniformly victorious. Having been taught to expect something the very reverse of all this, it was easier (and perhaps less galling to national pride) to refer to supernatural means what they were sorely puzzled to reconcile with their small amount of knowledge and reason,—not more absurdly, however, than we ourselves formerly drowned witches, and laid midnight goblins. Both men and mandarins, or, as our sailors call them, 'mad marines' purchased with avidity scraps of paper inscribed with English writing (occasionally words anything but talismanic), which were to inspire them infallibly with courage, and render them proof to shot. These were circulated widely in the Chinese forces by 'cunning' dealers, with more profit to themselves than the purchasers; and bought them with as much sagacity as led the lower orders of Irish in London a few years since, to buy 'pills good against earthquakes,' when the British metropolis was threatened by prophets with such intestine disorders."

"When the Splendour of Reason (the emperor's title) became well informed at last of our future movements, an effort was made to rouse the nation by a stirring edict. 'I desired,' he said, 'to free the people from the dreadful scourge of opium, and accordingly sent Liu Tsihsen as high commissioner to Canton. All submitted to his behest, except the English, who made a pretext for trouble, grounded on the burning of their opium. When they presented a statement of their complaints at the mouth of the Peiho, I dismissed Lin for misconduct, despatched Keshen to examine their grievances, and on their restoring Chusan granted life to their prisoners and permitted their return. They next behaved with unrelenting and outrageous insolence at Canton, but even then the high commissioner Yilshan accommodated himself to their demands. The debts owing by our merchants were paid to them, and they were allowed the opening of the much-coveted trade. Again, however, they were bent on mischief, hastened towards the north, took several places, re-occupied Chusan, and became the terror of my people. But what have you done to be exposed to the sufferings which you now bear? If you organise yourselves in bands to resist this invasion, I shall command my officers gallantly to defend the country, and, in case of failing to do so, punish them severely. Those of my subjects who have been led astray or followed the fortunes of the barbarians, I now recall, promising them forgiveness of their treason. All my servants are desired to unite with their whole heart and strength in extirpating this hateful race.' This was real to all the military, posted up in every public place, but proved of no effect. The army was down-hearted, and the people at large, who cared very little for their rulers, retained the most perfect apathy—except, as we have seen, for local reasons, at Canton."

"The peace which the Chinese were at length compelled to accept they proved very unwilling to keep. The amnesty was soon disregarded, and bad faith exhibited. A dreadful massacre of British subjects at Formosa took place, and other enormities were committed. But notwithstanding these infamous salvoes to the false pride of the Chinese, their literati were compelled to acknowledge that "the celestial empire no longer swayed the world." They still, however, blindly believed in the possibility of our extermination, and petitioned the emperor to raise an army for that purpose."

"It served as no alleviation of bitter feelings when the account of the sums expended in the hapless war necessarily reached the capital. They were so enormous as to appear almost fabulous to the parsimonious Taoukwang. 'Maudite galère! Traître de Turc!'—There was the certainty, at the same time, that these sums had, somehow or other, been expended, and millions upon millions were lost to the state. The autocrat's wrath knew no bounds, and he gave instant orders that the whole should be refunded. But not a twentieth part could by any possibility be recovered. Some of those concerned were in exile; others had destroyed themselves; several were in prison awaiting the trial for which there had as yet been no leisure. To make matters more desperate, a total financial exhaustion, after such convulsive exertions, was felt from Peking to Canton. The ordinary taxes could not be collected. But in the inanition of the patient consisted his safety. This financial exhaustion maintained the treaty and was the salvation of the country. The Chinese war party might have gained the ascendancy, and once more embroiled matters; but when their cries were the loudest, a simple inquiry as to the ways and means struck them dumb. When they were promised the honour of being allowed to spend their own property in the glorious struggle, the privilege of collecting dispersed armies and restoring consumed fleets, and conducting them against the hated enemy, they quietly relinquished the luxury of an uncertain revenge in consideration of the price. Peace became the order of the day;—the much-abused Keying remained in power, and Elepeoo was despatched to Canton to smooth down difficulties."

After all that despotism and ignorance could do, however, there

remained evidence of a sort of public opinion though in a wrong direction. Canton has its demagogues, and insurrection manifested itself in its streets against the Nankin treaty of peace. The war party was blatant. Its existence demonstrates the elements of a popular power; which, when enlightened by European intercourse, may yet work for good. The populace, in fact, has recently been put in possession of arms, and corresponding societies extend far and wide. In a hall belonging to the temple of Confucius, the Central Demagogue Society held its sittings, and passed resolutions which were carried into effect, such as the burning of a Prefect's office and the exercise of Lynch law on the police. Democracy, therefore, has begun its march in China, and now that California and Australia have attracted the more adventurous of the population to the gold diggings, to return with an enlarged experience of men and things, what may not be henceforth expected even from the hitherto unprogressive Chinese?

The commercial treaties closed with China by France and America in 1844 are of great importance, particularly as any advantage gained by one, is, by a common understanding, made also for the whole of Christendom. England inherited therefore the benefit of those treaties, and adding thereto what she had won for herself. One in each instance negotiated for all. Since the conclusion of the peace with England, the court of Peking has very much relaxed its restrictive regulations as to the Russian commerce; and Russia has reciprocated by making it death to introduce opium into China. Russia it is certain will leave nothing untried to establish its influence and political ascendancy at Peking.

The extravagant anticipations of trade with China consequent on the opening of the new ports, have not been realised. One reason is, the formidable obstacles to innovation presented by antiquated China, where the mind and body are both enslaved by old custom. Years may pass before the capital can be directed from the old channel of the Canton trade. But in due time there is still reason to hope that the expansive faculty of trade will force its way, and finally overcome every weight and pressure. At any rate, the Chinese merchants are now emancipated from the withering control of mandarins and Hongists, and are thus at liberty to afford full scope to their gainseeking propensity—the natural instinct of the Chinese mind.

The disorganised state of China is a subject of serious reflection. The people, having been supplied with arms, began to abuse them, and took to piracy. The government has been too weak to counteract this evil. Secret societies, too, under the names of the Triad, the Water-Lily, and other designations, occasion the authorities as much trouble on the shore as the smuggler on the waters. These are directed against the Tartar dynasty, and have already given rise to serious insurrections. The worst manifestations of these disorders have prevailed in the most southern provinces, where the infection first spread from Canton and became general. To rid himself of his difficulties, the late Emperor proposed to dispose of civil offices for money, —a proposition adverse to the constitution of China, which only grants distinction and rank to educated talent, making indeed small account of wealth; by this attempt the literary and influential class was roused against the government. Ever since the demise of Taoukwang, the insurrectionary movements of the south have increased, and every month's advice brings intelligence of their progress, with the avowed object of expelling the Tartars, and with a Chinese aspirant at their head, professing to be the representative of the Ming dynasty.

ST. LUKE PAINTING THE VIRGIN.

This fine picture, which has recently been imported into this country by Mr. Artaria, is a first-class work of John Van Eyck, who, though he did not discover the art of painting in oil (as was long believed), greatly improved the art, and brought it into general use. This was effected by his discovering the means of giving consistence to colours without drying them in the sun, and of adding to them clearness and brilliancy by a waterproof varnish. The picture before us is a brilliant specimen of this excellence, and powerfully exhibits the master's great skill as a colourist, together with his great variety of expressive design.

St. Luke (in whom is to be recognised the portrait of the donator) is represented in the act of drawing in *grisaille* the Virgin and Child. The holy personages are under a canopy of rich cloth of gold, the Virgin seated on a carved Gothic throne. The interior in which the action takes place is divided from a middle distance by a Gothic doorway or opening, over which, and at whose sides, glass stained with armorial bearings and other devices make allusion, probably, to the donor or individual through whose instrumentality the picture was called into existence. On a terrace in the mid-distance, a man and woman, habited in the quaint costume of the time, are engaged in conversation, looking out on a river stirred by the breeze, and flanked by buildings, and on a street in which are gossips at shop-doors and loungers in the street. A landscape distance bounds the horizon. In all the details of these several parts, the truth and beauty of execution are not more remarkable than is the astonishing state of preservation after the lapse of four centuries. It is the habit to talk of the Venetian *secret*: admiration would be more fittingly bestowed on combinations of which they were masters alike in their arrangement of local colours and in the excessive delicacy and subtlety of their tints. But if *mystery* is to be assigned to the chromatic means of any school, it is to those of Van Eyck and his followers that such an attribution should most properly be made. Luminousness is commonly associated with the proper management of impasto—trans-



ST. LUKE DRAWING THE VIRGIN AND CHILD.—FROM A PICTURE BY JOHN VAN EYCK.

parenthood with systematic conduct of the ground, left more or less as the basis of the shadows. The one and the other are alike attained in this picture, by means which all the advantages of modern discoveries in chemistry, and all the refinements of modern practice do not realise. It will be, of course, understood that these remarks are intended to be restricted to the technology of materials. In an archaic sense this work is of high importance to the painter; but such forms as these of the

Virgin and infant Christ assort not with the ideal of those who can appreciate what is beautiful and refined in Nature, or what is abstract and grand in Art. In the manifestation of completeness of means, and as dealing with great variety of incidents and details, this will challenge comparison with the picture by the same master which our National Gallery already possesses, and in many senses Mr. Artaria's picture will be thought preferable.

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THE DUCKS.—By DECAMPS.—(SEE PAGE 235.)

RECREATIONS IN GEOLOGY.

NO. V.—FOOTMARKS ON THE STONE.

NOTHING in the history of geological wonder, offers so many curious points for contemplation, as the fact of the preservation of foot-marks in certain strata of the new red sandstone. Borne we are prepared to find, or at least their discovery is not startling; and although, by means of the merest fragments, most strange conclusions have been deduced respecting the constitution and habits of creatures which have passed entirely from the stage of being many centuries ago; yet, even in this research, Science seemed to be still standing on her feet, and making little more than an average demand on our credulity. Startling it really is, when we find a mere footstep on the sand, or a light shower of rain on the muddy shore, recording its history in characters which will endure for ever; and leaving a mechanical daguerreotype of itself for the instruction of all future generations. And yet such is the fact; for geology gives us not merely the plants and animals of former ages embalmed by a chemistry which Nature only knows how to practise; but she gives us also the most perfect portraits of north-east winds, slanting and upright showers of rain, and the foot-prints of strange animals, which, but for these memorials or shadows of their existence, would for ever have been shut out from the circle of man's knowledge.

Entering the geological gallery of the British Museum, the visitor observes opposite the celebrated Jumna tortoise, a series of large slabs of stone, possessing few traits of popular attractiveness, and but little noticed by those who compose the general stream of sight-seers. These rough slabs, however, afford to the student of geology, more real interest than any of the more palpable wonders of the cases which surround them, for they contain veritable impressions of the feet of animals which have left us scarce any other records of their existence, and thus, enable the generaliser of geological facts to trace more completely the phases of past life upon the globe.

It is strangely coincident that in the era of the new red sandstone the waters were so much impregnated with iron that the fragments of animal life which were carried into the bays and estuaries were almost wholly destroyed; and hence this series of rocks is strikingly deficient in organic remains. But here, to compensate for the destruction of their remains, the foot-prints of the creatures remain for our instruction, as if Nature had determined to preserve some records of her progress; and, if the bones of the creatures could not be saved, then their pictures should be painted for coming generations. Certain it is, that these impressions are almost wholly confined to the new red sandstone, which was formed in an era when animal life was abundant, and when the chemical conditions of the earth were ill suited to the preservation of its remains.

In the year 1828 Dr. Duncan gave an account, with drawings, to the Royal Society of Edinburgh, of the tracks of an animal in new red sandstone in the quarry of Corn Cockle Muir, in Dumfriesshire. The tracks were found there in great abundance, on many successive layers of stone to the depth of forty-five feet, which was as low as the quarry had been opened. Layer above layer, presented a repetition of these same footsteps, as if the impressions had been made on sand at successive intervals, and each new series of foot-prints covered by the deposit of a fresh coating of sand, by the return of the tide. After an attentive examination of these, Dr. Buckland referred them to land tortoises, and supposed their formation on a bed of clay, or the marshy banks of a river, where the tide would alternately deposit a fresh layer of mud, and then recede and allow time for a fresh series of imprints. In 1830, similar phenomena were noticed by Dr. Deane of Massachusetts in a sandstone quarry on the borders of the Connecticut, and numerous specimens were obtained, which gave distinct tracks of an animal's feet. The impressions were obtained in depression and relief, the lower surface of one slab having moulded itself to the depressions in the upper surface of that on which it rested. Thus, on the lower surface of the upper stone a partial model of the foot was to be seen; and on the upper surface of the under stratum was the definite impression in which the model had been cast. Other specimens were noticed in the paving-stones of several towns of Massachusetts, and, in all cases, they occurred in slabs of new red sandstone. The foot-marks were found to vary in size, from very small to very large, and, in most cases bore considerable analogy to tracks of birds. Those first examined were pronounced by Professor Hitchcock to be the tracks of animals with two feet, each provided with three toes, and sometimes an additional projecting spur, the larger impressions showing traces of a hairy or feathery appendage extending in the rear. What was to be said of traces as definite as those which startled Robinson Crusoe, when on an island which he deemed uninhabited, he discovered the tracks of human feet? Why that these were the veritable impressions of the feet of wading birds, which had wandered on the low sea beaches of the new red sandstone period, and whose light footsteps had become indelible records of their history after every other hard bone of their bodies had perished.

In some of these blocks, the impressions were seen to have depressed the clay to the depth of three or four inches; and by tracing ten of these tracks in regular succession, Dr. Hitchcock was enabled to infer that they had been caused by a bird of great weight walking by a succession of regular steps. Dr. Mantell afterwards noticed in a slab containing these marks, the clear imprints of the papillæ, or tubercles of the foot; and the folds of the horny integuments were equally well defined. Three rows of foot-prints embraced fifteen impressions, and

the articulations of the toes were exceedingly distinct. Impressions of a somewhat similar kind, but caused by feet of a shape different to the preceding, were afterwards observed in the sandstone of Shropshire: and at Hastings, impressions supposed to be those of a bird, were found, measuring sixteen inches in length. At the time of this discovery, the suggestion that the tracks were those of a bird was received with scepticism; it being a well-grounded opinion with geologists then, that no warm-blooded creatures existed at the epoch of the new red sandstone. Mr. Lyell, however, when visiting America recently, had opportunities of observing the tracks on the Connecticut in company with Professor Hitchcock; and his investigations have, to some extent, set this opinion on a solid foundation. He says, that he found on a ledge of red shale, a line of nine of these bird-like foot-prints, turning alternately to right and left, and separated from each other by intervals of about five feet. At one spot there was a space several yards square, where the entire surface of the shale was irregular and jagged, owing to the number of footsteps one upon the other, as when a flock of sheep have passed over a muddy road. Mr. Lyell referred these impressions to the feet of birds; an opinion which was confirmed by Professor Hitchcock in 1836, when he found above two thousand foot-prints, probably made by nearly thirty distinct species, all indented on the upper surface of the strata, and exhibiting casts in relief on the under sides of the beds which had been deposited upon them.

The earliest discovered specimens of fossil foot-marks were found in Cheshire in 1824; but these remained undescribed and almost unnoticed till 1838, when others of like nature were dug from the quarries at Storton, near Liverpool. Simultaneously with the exhumation of these records at Storton quarries, foot-prints of the same shape and character were noticed in beds of new red sandstone, in some quarries at the village of Hesseburg, near Hildberghausen, in Saxony. In each of these three separate instances the impressions were unlike those previously described, and resembled very closely the markings of the human hand. The slabs obtained in Saxony were submitted to Professor Kaup, who decided that they were caused by the passage of a quadruped over soft mud; and from the resemblance of the foot-marks to the impressions of a hand, he named the supposed animal *Chirotherium*, or hand-beast; and it was supposed by him to be allied to the Marsupial tribe, or those which carry their young in a pouch in the manner of the kangaroo. In the latter animal, the first toe of the fore-foot is set obliquely to the others like a thumb, and the resemblance of the fossil impressions to the human hand, is plain.

The larger impressions are usually eight inches in length, and five in breadth, and they appear to be those of the hind foot. At about an inch and a half before this impression a smaller print of a fore-foot, four inches long and three wide, occurs. The foot-marks follow each other in pairs, each pair in the same line, at an interval of fourteen inches between each pair. A perfect cast of one of these larger feet may be seen at the British Museum, in a recess to the left hand of the larger slabs, which contain perfect impressions, both in relief and depression, of the foot-marks of the supposed *Chirotherium*.

These foot-marks afforded a wide field for the speculative powers of naturalists, and many were the ingenious conjectures hazarded as to the nature of the animal which had caused them. From the depth and distinctness of the impressions, it was inferred that they could only have been made by animals walking on soft clay away from any submerging waters; for if made by animals wading on the bottom of a shallow estuary, or on the sandy shore under water, the buoyant powers of the surrounding element would so reduce its weight, as to render the impressions less deep and distinct. It was further supposed that each layer of clay which bore these imprints had been afterwards submerged, so that a new stratum was successively formed above the former. Fortunately, some new fragments of bones and teeth were found in beds of this age, both in Germany and England; and after these had been attentively studied by Professor Owen, and compared with the foot-marks of the *Chirotherium*, the great zoologist pronounced the foot-marks those of a reptile bearing considerable analogy to the frog and salamander, and having no affinities with the kangaroo, as conjectured by Professor Kaup. A thin section taken from a good specimen of one of the teeth, when submitted to the microscope, presented a series of irregular folds, resembling the convolutions of the human brain; and, in consequence of these labyrinthine windings in the tooth, the name of *Labyrinthodon* was chosen as the most appropriate for this huge frog. In common with the vague manner in which specimens at the British Museum are labelled, these sandstone slabs still bear the original name of *Chirotherium*, and no hint is given to the visitor of our recent accessions of knowledge on the subject.

An examination of the various bones procured from the same formation enabled Professor Owen to describe five species of this new genus; in all of which the posterior extremities are much larger than the anterior. It was further noticed, that the tracks of the *Labyrinthodon* were more like those of toads than of any other living animal; and that the size of the three species corresponded with that of the three different kinds of footsteps, which had already been attributed to three distinct individuals. Finally, the structure of the nasal cavity showed the *Labyrinthodon* to be an air-breathing animal, since the posterior outlets were at the back part of the mouth, instead of being directly under the anterior or external nostrils. It must, therefore, have respired air like the saurians, and in all probability may have imprinted on the shore those footsteps which were supposed to have been produced by an animal walking on dry land.

By this series of investigations, set on foot by a mere scratch upon a block of stone, but guided throughout by the finger of a safe system of induction, we have presented to us a new phase in the progress of life, in past eras of the earth's history, and at the same time pictures of creatures, which, except for these fossilised footsteps, would, perhaps, have remained unknown to man for ever. We learn from this circle of researches, that the period of the now red sandstone, when the waters were impregnated with immense quantities of salt and iron, was by no means so barren in animal life as the poorness of its fossils would lead us to infer, but that reptile life was abundant, and moved about in many remarkable forms.

Respecting the supposed tracks of birds which occur in rocks of the same age as those containing traces of the Labyrinthodon, it has been ascertained with a considerable degree of certainty, that the footsteps in question really were occasioned by bipeds, and some of them by birds allied to existing races. Professor Hitchcock communicated to the American Journal of Science in 1836, some distinct traces in the new red sandstone of the Connecticut valley, first observed by Dr. Deane, of Queenfield, who immediately noticed their similarity to the impressions of aquatic birds on the muddy banks of the same locality. Subsequent examinations discovered similar foot-marks in several quarries of the same valley and other parts of Massachusetts; and several specimens are now in the British Museum, the most remarkable of which is a slab, eight feet by six, which exhibits traces of various sizes belonging to different individuals. It was this which arrested the attention of Dr. Deane at Turner's Falls; it is placed to the right hand of the slabs already described. Recent researches in the Storton quarries have brought to light the foot-prints of birds, from a small size up to two and a half inches in length. Mr. Cunningham describes the feet as having three toes, and the length of the stride is ten inches. As far as they can be distinctly traced, they appear right and left, and bear a distinct resemblance to the foot-marks of existing waders. Across other slabs found in the same district runs a grooved mark, as though formed by the tail of an animal trailing in the mud; some were covered with a net-work of cracks, and appear as if formed under water, while others have been exposed at repeated intervals to the heat of the sun, and the further deposition of silt by water, which has thus produced a succession of layers.

At Turner's Falls, already prolific in foot-prints, Mr. Lyell, found in 1844, some well defined tracks or glossy shales imbedded in the sandstone. One of the slabs contained above one hundred tracks made by four or five varieties of these birds; and, in these claws, joints and integuments were clearly exhibited. Some of the prints were made by a short, heavy bird; others, of a smaller size, with a larger stride, were supposed to be those of a wader similar to the heron; while others, showed a foot six inches in length and width, and a stride of twenty-nine inches. In the latter case, the bed of mud had been so deeply impressed, as to show that the bird must have been of great weight.

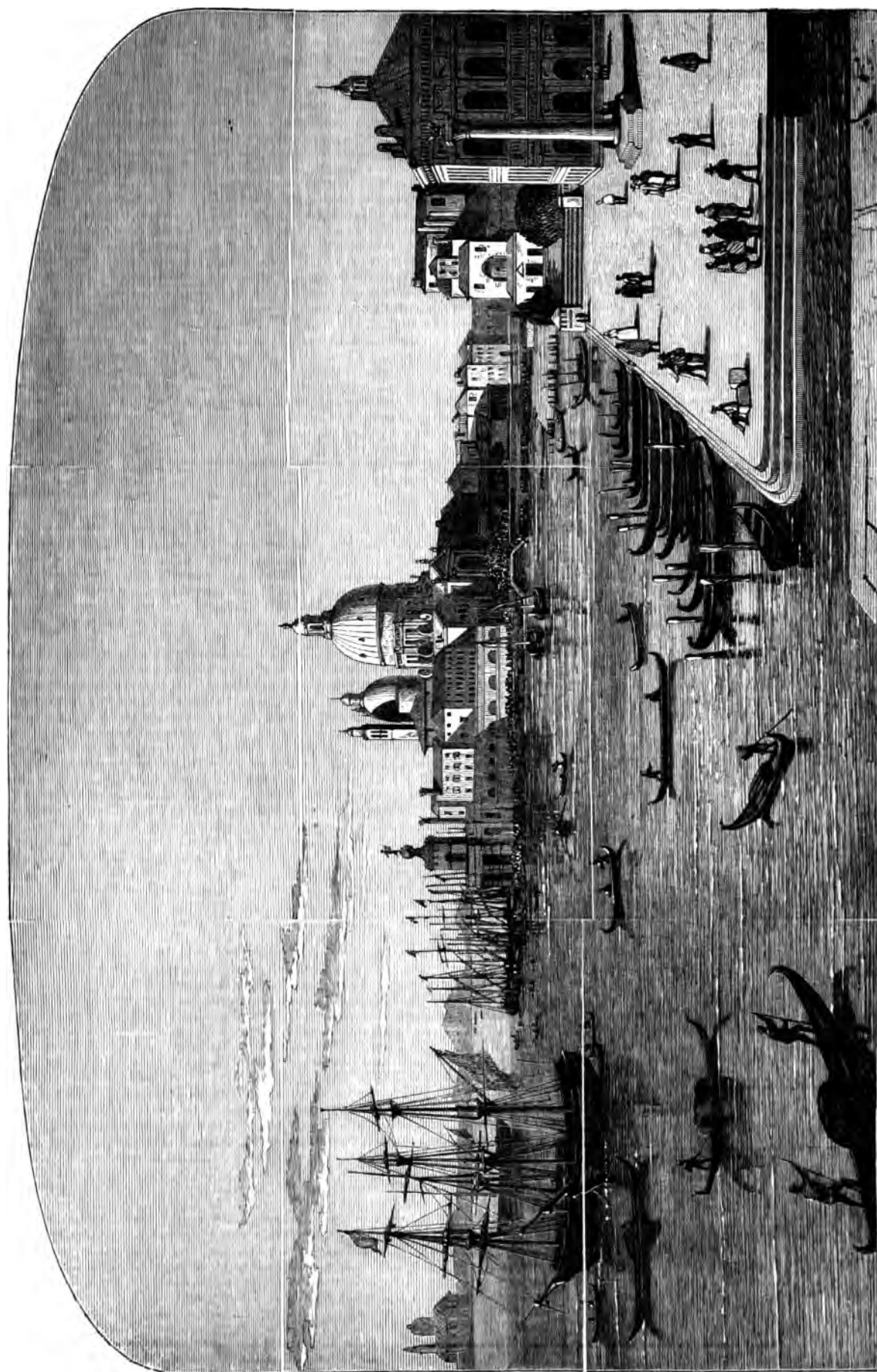
At this point of the inquiry, a discovery was made which went far to complete the chain of evidence in favour of the tracks being those of birds. This consisted in the finding of coprolites, or the fossilised excreta of animals, which corresponded to the fecal dejections of wading birds. These were formed in calcareous rock in a place which had been the resort of the birds, and which abounded in foot-marks and tail tracks. In the account of these, published in the "Transactions of the Geological Society for 1845," it is stated that:—"In the midst of them were found a few egg-shaped flattened bodies, about an inch in diameter, and two inches long, of a dark colour, and considerably softer than the enclosing rock, which is very hard and compact. When broken crosswise, they usually exhibit a more or less perfect concentric arrangement, and are sometimes a little convoluted. They adhere so strongly to the rock, that their precise appearance has not been determined. In the inside of this mass, small black grains may be seen resembling seeds, the black matter of which is carbonaceous. When this is burned off, the remainder of the fossil has been found, on analysing it, to consist of phosphate and carbonate of lime. It is supposed that the black grains are seeds which have passed undigested through the intestines, and which have assumed in the passage such positions as these foreign bodies would and often do in the feces. A remarkable and beautiful result has been obtained by the application of the power of chemical analysis to these fragments. These are found to contain uric acid in the proportion of about one-half per cent; and from the circumstances under which it occurs, it is concluded that the coprolites must have been dropped by a bird rather than by any other animal. It also appears that the animal was in all probability omnivorous,—a conclusion suggested by the analysis of the coprolite, and confirmed by the probable presence of seeds, as above alluded to."

It was conjectured that the birds causing these tracks, and leaving these fecal deposits, were of the tribe *grallæ*, or waders; and observations by Mr. Lyell and Dr. Hitchcock confirmed in a partial manner such a conclusion. The valley of the Connecticut seems to have been in earlier ages, a shallow expanse of water opening to the sea. Around this there must have been a region of soft clayey soil, submerged and marshy during rainy seasons; and at other times comparatively dry. Here the birds congregated; and all unconscious of the autobiographies they were writing, imprinted those tracks in the soil, which now afford so much interest to the physical enquirer. When these foot-marks had been well baked by the sun, the waters flooded them, and deposited a new layer of silt or soft mud; and upon the receding of the sea, a new series of tracks was made above the first. In some instances, large

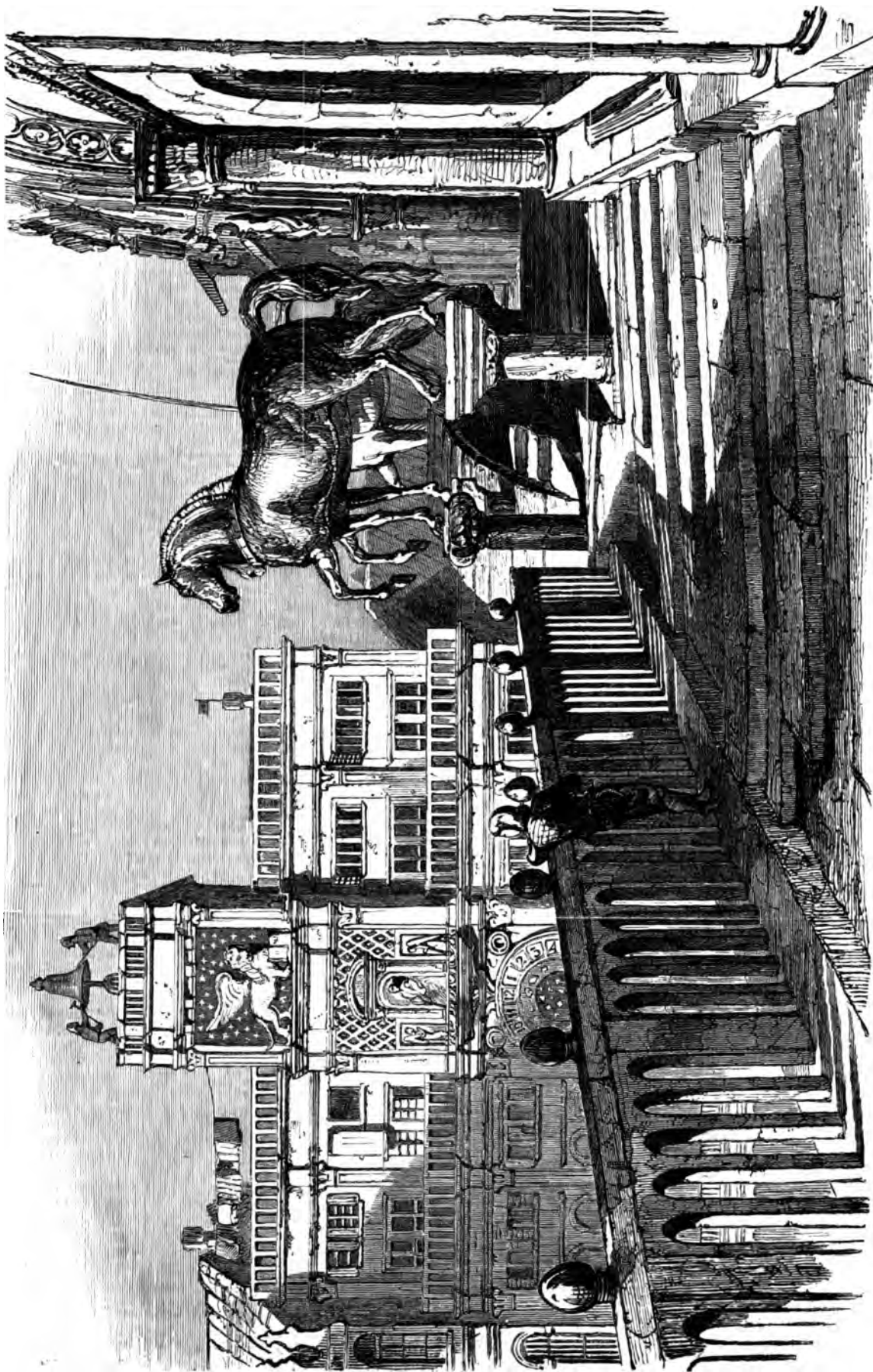
quantities of lime and iron were washed down from the hills during the flood seasons, and the sediment, settling in the hollows formed by the pressure of the birds' feet, formed those stony casts, or *fac-similes*, of which the one in the Museum gallery already mentioned is a specimen. Since the tracks were found, they have been sunk to the depth of several hundred feet, and hardened into stone, and again upheaved into the position they at present occupy. The marks extend for more than eighty miles along the Connecticut, and associated with them numerous fossils occur. Along the muddy banks of the river, Professor Hitchcock saw similar marks made by snipes; these had been baked hardly by the sun, and perfectly resembled those on the sandstone slabs. When travelling in Georgia, Mr. Lyell saw the traces of racoons and opossums under process of being preserved on the sea shore by the drifting in of fine-blown sand, which, filling up the foot-prints, would in time concrete into hard stone, and afford on their under-surfaces, casts in relief of the depression into which the first coating of sand had been blown. He also saw tracks of a similar kind in a red deposit of mud thrown down at the mouth of the Potomac, at Baltimore; and others of Annelides and birds in regular sequence, faithfully representing the ancient footsteps of the Connecticut. "The recent footsteps," says he, "were those of the sandpiper, flights of which I daily saw, running along the water's edge, and often leaving thirty or more similar impressions in a straight line, parallel to the borders of the estuary. The red mud had cracked in hardening in the sun's heat, and was divided into compartments, as we see clay at the bottom of a dried pond, and I was able to bring away some pieces to England."

To the birds whose former existence was discovered in this remarkable manner, the generic name of *Ornithicites* has been attached. They were of many species, as the varieties of their marks testify, and ranged from the size of the still plover, to double that of the existing ostrich. The African ostrich measures from seven to nine feet in height, and weighs from eighty to one hundred pounds. The total length of the foot is ten inches. In the largest impression of the foot-prints of *Ornithicites*, the length of the foot is fifteen inches, width ten inches, and the hind claw ten inches. The name of *Ornithicites giganteus* is, therefore, appropriate for a bird which must have measured little less than double that of the largest ostrich. Such a bird, indeed, has been found; and in the *Dinornis giganteus*, the fossil bones of which were discovered in New Zealand, Professor Owen thinks we have a counterpart with these giant races of the past, the largest of which must have been equal in size to the camelopard. The foot-prints of the *Dinornis* were of the trifid character, as in the case of the Connecticut traces; the dimensions of the foot were similar, and there is every reasonable proof, apart from the discovery of the fossil birds themselves, of the existence at the era of the formation of the new red sandstone, of a tribe of gigantic birds, larger than any existing on the globe, and claiming kindred with the great feathered brutes of eastern fable, one of which, the rowick, is represented as carrying a horse or an elephant with ease in its talons.

If anything can exceed in interest the curious revelations of these fossil footmarks, it is the preservation, side by side with them, of the impressions of showers of rain, and in like manner casts of rain drops, on the slabs which have been found on the surface of those originally pitted by the shower. The stone exhibited to the Geological Society by Dr. Mantell, as illustrative of the tracks of ornithicites, contained also distinct traces of a shower which must have fallen before the birds had made the footprints. In a stratum containing the marks of four or five species of birds, Dr. Deane noticed also most definite traces of rain-drops, pitting the stone all over, just as we see soft clay marked by modern showers. In a slab taken from the Storton Quarries, Mr. Cunningham saw distinctly the same appearances, as did also Mr. Lyell in the shale at Turner's Falls. "When I arrived in this region," says Mr. Lyell, describing the Bay of Fundy, "it was the period of neap tides, so that large areas, where the red mud had been deposited, were laid dry, and in some spots had been baking in a hot sun for ten days. The upper part of the mud had thus become hard for a depth of several inches, and in its consolidated form exactly resembled, both in colour and appearance, some of the red marks of the new red sandstone formation of Europe. The upper surface was usually smooth, but in some places I saw it pitted over with small cavities, which I was told were due to a shower of rain which fell eight or ten days before, when the deposit was still soft. It perfectly recalled to my mind those 'fossil showers,' of which the markings are preserved in some ancient rocks, and the origin of which was first explained to an incredulous public by Dr. Buckland in 1838." In addition to records so minute and delicate, we have also impressions of ripple marks and most exact traces of light and heavy showers, so accurately printed on the stone that we may see whether, by the slanting nature of the impressions, the shower has fallen during a high wind; or whether, by their equal sphericity, it has occurred during a perfect calm. Who would have thought that a north wind, or a weak and momentary ripple would trace its picture so accurately on the obdurate stone as that a thing so ephemeral, so yielding, so intangible as a wavelet, should make itself a personage in the history of the globe, and trusting to no outward accidents for its biography, should write its own memoirs on the flanks of the hills? And yet it is so: the great lizards and birds, and the feeble crabs, and lifeless showers and ripples that swell and die in a less period than the beating of the pulse,—all leave their records behind them, in no perishing and temporary form, but cut indelibly on the faces of the rocks, as if the sculptor had followed each with his chisel, and had consecrated to histories apparently so trivial the full perfection of artistic skill.



THE GRAND CANAL.—THE DOGANA AND THE CHURCH OF STA. MARIA DELLA SALUTE.



TOWER OF OROLOGIO, THE HORSES OF ST. MARK, ETC.

VENICE.

THE accompanying pair of Engravings, after drawings by Viscount Maidstone, present two views in Venice—one characteristic of the external peculiarities of the city, and the companion illustrative of its internal curiosities, which have excited the admiration of ages, but which the mysteries of modern warfare would soon reduce to a heap of ruins.

We shall not describe the construction of the city upon 72 islands, with pile and stone foundations for the buildings; or its division by the grand canal, and subdivision by 146 smaller canals, crossed by 906 public bridges. It is approached from Vicenza by 41½ miles of railway, and from Padua by 28 miles; a stupendous bridge carrying the line over the Lagoon of St. Giuliano, and entering Venice on the island of St. Lucia.

Rogers gives a general description of Venice, which is pleasing, and was correct when written; but the railroad has superseded the passage from the mainland in a gondola, and in more senses than one interfered with the poetry of the scene:—

There is a glorious city in the sea.
The sea is in the broad and narrow streets,
Ebbing and flowing; and the salt sea-weed
Clings to the marble of her palaces.
No track of men, no footsteps to and fro,
Lead to her gates. The path lies o'er the sea,
Invisible; and from the land we went,
As to a floating city, steering in,
And gliding up her streets, as in a dream,
So smoothly, silently—by many a dome,
Mosque-like, and many a stately portico,
The statues ranged along an azure sky;
By many a pile, in more than Eastern pride,
Of old the residence of merchant kings;
The fronts of some, though time had shatter'd them,
Still glowing with the richest hues of art,
As though the wealth within them had run o'er.

One of the peculiarities of Venice is that her finest buildings can only be seen from the water, out of which they seem to rise. The first of the accompanying views—*The Dogana, with the fine church of Sta. Maria della Salute*—is an illustration. This cluster of buildings is situated at the mouth of the Grand Canal. The Dogana del Mare, or custom-house, is a noble edifice, with a magnificent marble colonnade, and a beautiful tower, crowned with a statue bearing a golden globe, to represent the world, emblematic of the ancient glory of the city. Santa Maria della Salute is one of the 120 churches of Venice, and was erected in 1682, as a monument of thanksgiving after the cessation of the great pestilence, of which 60,000 of the inhabitants are said to have died. It is a large octagonal edifice, crowned with a large dome and two smaller ones, and most sumptuously ornamented externally. Internally, the dome is supported on eight pillars, the aisle continuing all round it; and there are eight recesses, seven of which are chapels, and the eighth forms the entrance. The effect is beautiful and picturesque. The interior is splendidly decorated by Titian, in his first manner; by Tintoretto, Salvati, &c. The right foreground of the illustration shows a portion of the Molo, near the southern end of the Paretta, showing one of the two famous granite columns, surmounted by the celebrated bronze "winged lion of St. Mark," and the symbol of the far-extended power of the Venetians. This point is considered as "the state entrance" to Venice from the sea.

In the companion engraving we have the *Orologio*, or clock-tower, on the northern side of the great square, and in a portion corresponding with that of the Campanile; both these structures being almost regarded as appendages to the Cathedral of St. Mark, in front of which they stand. The Orologio is named from the dial which shines in the centre, resplendent with gold and azure, the sun travelling round the zodiacal signs which decorate it, and marking the time of twice twelve hours. Above are two figures of bronze, which strike the said hours upon a bell.

John Evelyn relates in his "Diary," that, towards the middle of the seventeenth century, a man is stated to have been killed by the famous clock in the square of St. Mark: while repairing the works, he stooped his head in such a position, and in such a nick of time, that the quarter-boy struck it with his hammer, and knocked him over the battlements.

The Virgin, of gilt bronze, and, above, a gigantic lion of St. Mark, upon an azure and stellated ground, decorate the two upper stories. The tower was designed by Pietro Lombardo, 1494. The wings were added in the sixteenth century. Beneath the tower is the entrance to the *Merceria*, where nearly all the principal shops are concentrated.

This view is taken from the roof of the western porch of the Cathedral of St. Mark, in the centre of which stand the celebrated bronze horses. They were brought from the Hippodrome, at Constantinople, being part of the share of the Venetians in the plunder when that city was taken by the Crusaders. Antiquaries hesitate concerning the date and even the country of these horses. Their most generally received history is that Augustus brought them from Alexandria, after his conquest of Antony, and erected them on a triumphal arch at Rome; hence they were successively removed by Nero, Domitian, Trajan, and Constantine to arches of their own; and in each of these positions it is believed they were attached to a chariot. Constantine in the end transferred them to his new capital, since their removal from whence they have occupied their present position at Venice, except during their short visit to Paris, whither they were reconveyed in 1815—the captain of the vessel selected

for this service claiming descent from the great Dandolo. The horses are of gilt bronze, and not in the highest style of art. Poets have mostly been accustomed to regard Venice as

—the pleasant place of all festivity,
The revel of the earth, the masque of Italy.

This sunny picture has, however, its reverse; for, curiously enough, we find a great poet (Moore) thus premonitorily picturing the realities of the scene:—

If you would save some dreams of youth
From the torpedo touch of Truth,
Go not to Venice, do not blight
Your early fancies with the sight
Of her true, real, dismal state—
Her mansions, foul and desolate;
Her close canals exhaling wide
Such fetid airs as with those domes
Of silent grandeur, by their side,
Where step of life ne'er goes or comes;
And those black barges plying round,
With melancholy, plashing sound,
Seem like a city where the pest
Is holding her last visitation;
And all, ere long, will be at rest—
The dead, sure rest of desolation.
So look'd at nightfall oft to me
That ruin'd City of the Sea.—*Metropolitan Magazine*, 1832.

MANUFACTURE OF GUN-BARRELS.

THE manufacture of fire-arms is one of the most extensive trades carried on at Birmingham; and in all its various departments—of stock, lock, and barrel—is estimated to give employment to between 6000 and 7000 persons. During the war, happily ended by the peace of Waterloo, Birmingham could not manufacture fire-arms with sufficient rapidity to meet the necessities of the Government; although for a period of many years it turned out, according to a phrase still repeated in the town, "a gun a minute, night and day, Saturdays and Sundays," or 625,600 per annum. The Government, therefore, established two factories of its own, one at Enfield, the other at Lewisham, the former of which is still in existence. Though the trade since those times has greatly diminished, Birmingham still manufactures immense quantities of fire-arms of all descriptions; and supplies the gun-makers of every part of the kingdom with gun-barrels and gun-locks, which are afterwards fitted together in London and elsewhere. The manufacture of gun-barrels alone, without reference to "lock" or "stock," gives employment to about 1600 persons. A proportion of the gun-barrels thus produced are for the Government and for the East India Company; and another portion are for sporting purposes, for the home and foreign trade; but by far the largest number are manufactured for Africa. The African trade in this article alone supports many hundreds of people. The guns are of the cheapest and commonest description. The orders are received from the merchants of London and Liverpool, who barter the guns on the African coast for ivory, spices, gold-dust, and other produce. It is asserted that many of these guns find their way to Brazil, and that the Brazilian slave-traders carry on an extensive business with some of the African kings and chiefs, by exchanging guns for men. When this abominable traffic was legal in England, a Birmingham gun was the common price for a negro. During the few months that succeeded the French Revolution of February, 1848, there was quite a stir in the gun trade of Birmingham, in consequence of the demands for fire-arms that came from Sardinia, Sicily, and Denmark; and the manufacturers disposed of large quantities of their old stock at considerably advanced prices, and found constant employment for their workpeople at high wages, for about six or seven months.

The following details of a visit to the works of Messrs. Sargent, in illustration of the accompanying engravings, are derived from the *Morning Chronicle*:—

"On entering the spacious premises (says the writer), I was conducted to a shed, to see in its first stage the raw material of the future gun-barrels. A large heap of loose steel lay upon the ground. Around it were gathered a number of boys and men engaged in sorting the material into smaller heaps, preparatory to its being consigned to the furnace. A process the reverse of turning the sword into the ploughshare was here going on. Among the peaceful articles about to be converted into murderous implements, and forming a very heterogeneous mass, lay innumerable sheets of waste steel from the button and pen manufactories, from which the blanks for buttons and pens had been pierced or punched out; fragments of steel chains, dog collars, old knives and forks, steel fenders, hammer-heads, keys, horse-shoes, coach-springs, hinges, iron spoons, steel tubing, fragments of rods from iron bedsteads, and countless other fragments of steel and wrought-iron. * * * The first step in the process is the puddling, or making of the iron. Here a picturesque scene presents itself. The odds and ends of iron and steel, having been bound together, are thrown into the furnaces, which glow with a white heat as the iron doors are opened to receive them. Half a score of men, naked to the waist, their breasts, arms, and faces shining in the red light, and trickling with perspiration, wield large and heavy pointed rods of iron, with which they stir the metal in the furnace, every now and then taking out their rods to dip them in an iron tank,

full of water, which stands close by. When the metal is sufficiently heated, it is taken out of the forge, by means of long iron mandrils, by the half-naked puddlers, and dragged along the iron pavement, leaving a brilliant trail of sparks behind it. The next operation is to hoist the mass upon the anvil, upon which a stupendous hammer, weighing about three tons and a half, moved by steam power, descends with equable but gigantic force, and gives it a blow which compresses it into about half its previous bulk, and sends the sparks out on every side in a glittering shower. A turn of the workman's hand presents another side to the hammer before it again descends, and two or three blows convert the shapeless mass into a thick bar of iron. This process, however, is but preparatory. In another part of the premises, sheets of cold iron, already manufactured, and which have undergone this, and the additional process of rolling at another part of the establishment, are subjected to the jaws of a titanic pair of shears. The sheets are from three-quarters of an inch to an inch thick, but are snipped through with as much ease as if they were pieces of writing paper. At every descent of the quiet but powerful shear a new length is severed. These lengths of cold iron are destined to be made into gun-barrels. Taking one of these lengths, let us trace its progress. After being cut it is cast into the forge, and heated to a white heat. It is then taken out of the furnace by a workman called a roller, who, seizing it with his pincers, passes it between two rollers, revolving upon each other, and moved by steam-power—the one concave, and the other convex. Issuing from the side opposite to that which it entered, it is seized by the pincers of another workman, also called a roller, and is found to have curled round in the form of a tube. It is now passed in the same way through a smaller pair of rollers of the same construction, under the pressure of which its edges are brought a little closer than by the first operation. This having been done, a mandril, or long bar of iron is passed through it, and it is once more consigned to the furnace. When of a proper heat it is taken out to undergo the next process, which is that of welding. The business of the welder is to hammer it round and round on the mandril, so as to make the edges cohere, and to make the mould a perfect tube, without seam or jointure. In this state the mould is not above eighteen inches long and is much too short and thick for a gun-barrel. Once more it is consigned to the fire, whence issuing, the mandril is inserted through it, in order that it may be subjected to the operation of a pair of rollers, which in less than half a minute squeeze it out to about double its former length. While still red hot, it is passed back by the workman through a smaller pair of rollers, and receives a few inches of additional length. On an average, each mould is subjected seven times to this process, at the end of which it is to all outward appearance a gun-barrel, but rude and rough, and requiring much additional labour of a very different kind to complete it.

"In this manner are formed the barrels of all the common and cheaper kind of guns, such as are used for the export trade to Africa, and also contract guns of superior kind for the military."

The twisted gun-barrels are formed in a somewhat different manner. The length of Damascus steel is twisted while cold around a mandril, and is then placed in the furnace, till it is of a red heat. It is afterwards welded by the hammer.

"The gun-barrel, whether of the common steel or of the twisted Damascus, is now ready for the next operation, which is that of boring. The business of the gun-barrel borer is to clean and polish the interior of the tube, and at the same time to work it to the size or bore required, and to give it a perfectly smooth and even interior surface. This operation is performed by steam-power, and is superintended both by men and women. The process of boring is performed by an angular rod of the hardest steel, which is made to revolve in the barrel by steam-power, and scrapes the inner surface as it turns, till it is as beautifully smooth and polished as a mirror.

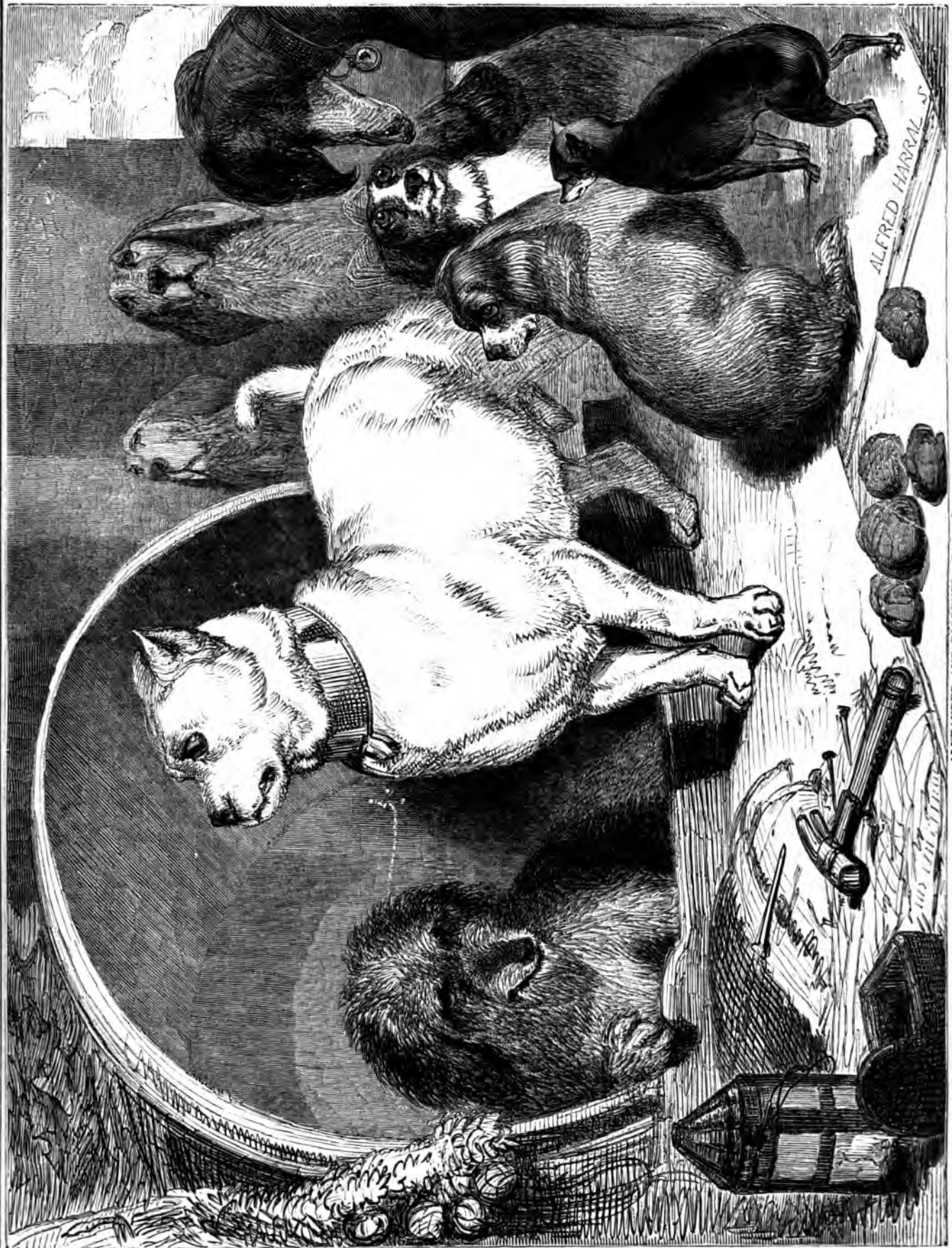
"The interior of the barrel being thus completed, it is passed into the hands of a workman whose business it is to bring its outer surface into a more proper and slightly condition, for, as yet, it is rough and coarse, as it passed from the hammers of the welders. This is the most picturesque part of the manufacture of a gun. Entering a large and gloomy shed, into which a kind of twilight is all the light that penetrates, the visitor sees a number of immense grindstones revolving with dizzy velocity. The steam-power, which sets in motion all the other machinery of the 'mill,' moves these ponderous blocks of sandstone, of which the smallest measures, when new, from four to six feet in diameter, and is two feet wide at the rim. The weight averages three or four tons; and such is the velocity at which they turn, that when it has been wished to stop them, they have been known to continue their revolutions for more than ten minutes after the connecting-bands have been displaced. Let the viewer picture to his imagination no less than twelve or thirteen of these ponderous stones whirling around at this fearful rate, under a dark and gloomy shed. Let him further picture a constant dripping of water upon them from a tank on the roof, and conjure before his mind's eye a workman seated before each of them astride upon a wooden block, called a 'horse,' and holding with both hands a gun-barrel to the fast-revolving rim; let him fancy the loud sharp noise of the grinding, the monotonous whizz of the machinery, the semi-darkness of the place; and from the iron tube which each workman holds, picture to himself a stream, or rather torrent, of sparks rushing upwards to the roof, as if the very substance of the metal were being converted by his grindstone into flashes and sparks, and as if that conversion were the whole object of the process, and he will have a faint and imperfect idea of the scene presented in the grinding-shed of a large gun-barrel foundry.

"After the barrel is bored and ground, it becomes necessary to have it proved. For this purpose, and before any great expenditure of labour or money takes place, a 'pin' or 'nut' is screwed to the breech end, and the barrel is conveyed to the Proving-house. This establishment was founded in 1813, at the instance of the Birmingham Gunmakers' Company, who obtained an Act of Parliament for the purpose. The business of the Proof-house is under the control and direction of three wardens, who are annually chosen from the general body of guardians and trustees of the company. In addition to the members of the Corporation of Gunmakers, the Lords-Lieutenant of Warwick, Worcester, and Stafford, the members serving in Parliament for these counties, and the magistrates acting in and within seven miles of the town of Birmingham, are *ex officio* guardians. The Act was obtained to ensure the proper and careful manufacture of fire-arms in England. Under its provisions, 'every person who shall use, or cause or procure to be used or to be begun to be used, either by ribbing, break-off fitting, or other process, in any progressive state of manufacture, in the making, manufacturing, or finishing of any gun, fowling-piece, blunderbuss, pistol, or other description of fire-arms, usually called small-arms; or who shall offer for sale, or sell, or cause or procure to be taken or received, or permit or suffer to be received on his behalf, any barrel which shall not first have been duly proved, and marked as proved, at the Proof-house, established at Birmingham, under the provisions of the Act, or some other proof-house established by law, shall forfeit and pay for every offence twenty pounds, such penalties to be recovered in a summary way, before two Justices of the Peace, the one-half to go to the informer, and the other half to the poor of the parish where the offence shall be committed.' As many gun-barrels burst in the severe proof to which they are subjected, they are put to the test before they are mounted. Boys may be seen at all hours of the day in the streets of Birmingham carrying the barrels on their shoulders to this establishment, where they are duly received and entered, and proved with all convenient rapidity.

"The buildings connected with the Proof-house form three of the four sides of an interior court, at one extremity of which, and detached, is a small powder magazine. The Proof-house itself is a detached building. All the interior of this room is lined with plates of cast-iron, from three-quarters of an inch to an inch in thickness; the door and window-shutters of the apartment are also of cast-iron. The barrels are set in two iron stocks: the upper surface of one has a small gutter, to contain the train of powder; on this train the barrels rest, with their touch-holes downward; and in the rear of the breeches of the barrels is a mass of sand, to receive the barrels which may recoil. A second mass of sand is formed before the muzzles of the pieces under proof, to receive the balls. When the train of powder is laid, and the gun or pistol barrels are placed on the stocks, the window-shutters are closed up, and fire is set to the train from without, by the insertion of a bar of red-hot iron through an orifice in the wall. A deafening explosion succeeds. After a short delay, lest any of the barrels should have hung fire, the window-shutters are opened, the smoke dissipates, and the attendants remove the barrels."

The scale of proof is the same as that used by the Board of Ordnance and by the London Gunmakers' Company, and is at the rate of from three to five times the quantity of powder that would be used for the piece in actual service. It is regulated according to the number of the ball to the pound: for a ball of one pound, eleven ounces of powder are used; for two balls to the pound, five ounces and five drachms; and so by a gradually descending scale to balls of from 45 to 50 in the pound, when the weight of powder for proof is five drachms and a half. The fee for proving varies from 2½d. to 1s. per barrel. For any common barrel not above the calibre of 18-16ths of an inch, the fee is 6d.; for every pair of common pistols, 6d.; for every twisted barrel, 9d.; for every pair of twisted, 9d.; and for every barrel above the calibre of 18-16ths of an inch, 1s. It is curious to observe the fantastic shapes into which the barrels that burst under the severe trial of their strength are contorted, twisted and rent. What is called 'spilly' iron, or iron with which sand or any other foreign material has been wrought, invariably bursts under the proof. Sometimes the barrel splits into ribbons; at others it presents an appearance like a stag's antlers; sometimes the end is separated like the prongs of a trident, and sometimes one large gash, or rip, is disclosed from end to end; sometimes, the twisted barrels are partially untwisted, and present an appearance not unlike corkscrews. The barrels that appear to have undergone the proof satisfactorily, and that have not burst, are taken out and put aside to undergo a further test, while those which have burst are condemned as old iron. After twenty-four hours the barrels are again examined; and if no discolouration from the saltpetre appears in the exterior, which is a certain sign of a flaw in the iron, they are considered to be fit for service. Should there be any possibility of a crack or flaw, however slight, which the saltpetre has failed to disclose by discolouration, the gun-barrel is filled with water, and a ball larger than the bore is hammered down into it. This compresses the water so violently, that, if there be the slightest crack, it comes through, and betrays the unsoundness. Should the barrels have undergone satisfactorily all these tests, they are marked with separate marks—one for viewing, and one for proving.

After the barrels have undergone this process, they are taken to the gunmaker, or stocker; and lock, stock, and barrel—which severally go through a variety of hands, quite independent of each other, and forming separate trades—are finally united.



ALEXANDER AND DIOGENES.—EDWIN LANDREY.

SPECIMENS OF MEDÆVAL ART.

THE accompanying illustrations represent two Ewers, portion of the magnificent silver plate belonging to the Right Hon. Lord de Mauley, which were exhibited at the Exhibition of Mediæval Art at the Society of Arts in 1850. They were purchased by Lord de Mauley, at Genoa, of the Lomellini family, a branch of the Dorias, the deeds of one of whose renowned ancestors, Andrew Doria, the bas-reliefs and emblems



SILVER EWERS, WITH SALVERS, REPRESENTING THE TRIUMPHS OF DORIA.—SEVENTEENTH CENTURY.

on the plate have usually been considered to portray. These ewers, as our illustrations show, are of extremely fine form, the figures being modelled with the utmost precision and effect. On the larger of the two ewers, the subjects represent a camp, with figures apparently hastening to inform a general of the success of a naval expedition which is sculptured on the other side. The neck, stand, and handle are of striking and picturesque design. The bas-relief on the smaller ewer represents a group of tritons fighting, and sea-monsters carrying away nerines, modelled with infinite tact. The base, neck, and handle of this ewer are extremely elaborate, and full of beautiful detail, wrought in the most spirited manner.

PRINTING IN GOLD.

DIBDIN, in his "Decameron," (vol. ii., p. 146), states, that "This country has also an honour and a treasure to boast of in Mr. Whittaker's 'Magna Charta,' printed in letters of gold, with illuminations. His manner of operating is yet a secret. The Society for the Encouragement of Arts offered Mr. Whittaker a premium for his ingenuity, upon the condition, as is usual, of his making the process known; but Mr. Whittaker, aware of the importance of keeping it a secret, declined the premium. There are some copies on vellum—beautiful, splendid, and characteristic, beyond any similar work (I had almost said ancient as well as modern) which it has ever been my good fortune to behold. Indeed, taking it 'all in all,' those who have not seen such an union of typographical and graphical skill as those illuminated copies display, can have no idea of the extraordinary felicity of their execution."

The method adopted by Mr. Whittaker is the following, for which the Jury is indebted to Mr. John Harris, who was employed on the work. The page is composed in moveable type in the usual way; a stereotype plate is taken. A piece of iron the size of the page, about half an inch in thickness, is made hot, and placed on the table of an ordinary typographical printing-press; the stereotype plate is then placed on the iron plate, and gets hot, and leaf-gold of an extra thickness, of the size of the plate, is laid very carefully on the surface of the plate; then the paper or vellum is placed on the tympan in the usual way, having been previously sifted over with dried glaire of egg and rosin finely pulverised, which adheres to it in sufficient quantity; the tympan is then turned down, and the pull dwelt on. The degree of heat must be ascertained by practice: if the plate be too hot, the gold is dead and drossy; if too cold, then it appears bright but imperfect. This process is similar to that now used by bookbinders in block-gilding with an arming-press.

About twenty years ago, M. Sturte introduced into England printing in gold from copper plates. His process was, to mix with printers' ink weak burnt oil, a certain quantity of gold or silver bronze, to the same consistency as that of strong copper-plate ink, and filling the plate with it, to dab it in with the fingers. The plate had to be engraved deeper than usual, and when filled it was delicately cleaned off first with a rag dipped in a weak solution of pearlsh, and then with the palm of the hand, in the usual way. It was afterwards submitted to a heavy impression of the copper-plate press, being printed in the manner called "thorough press," and the impression, when dry, polished by passing it through the press several times with the printed face against a highly-polished steel-plate, by which a beautiful bright-

ness was imparted to the bronze. This process, decidedly the best where great perfection is required, has been abandoned by most of the copper-plate printers for the cheap and less tedious one of first printing with a coloured-ink ground with gold-size and oil, and then rubbing the bronze on the paper when just printed.

Printing in gold by letter-press soon followed the method of copper-plate gold printing. Messrs. Vizetelly and Branstetter were the first to apply it; and their visiting and address cards, printed by letter-press, from rose-engine plates, have never been surpassed for the brightness and beauty of their execution.

About the same period, Mr. De La Rue, in conjunction with the late Mr. Balne, of Gracechurch-street, produced a large royal 8vo. edition

of the New Testament, printed in gold, twenty-five copies of which were in pure gold powder. Nothing has since been produced equal to this unique edition. At the coronation of Queen Victoria, Mr. De La Rue undertook to produce the *Sun* newspaper printed in gold. The rapidity with which this had to be effected, was one of the many difficulties he had to encounter. Messrs. Clowes and Sons afforded him every aid by placing at his disposal the printing machines of their extensive establishment. Upwards of one hundred persons were employed to rub the bronze on the printed sheets, which had to be brought from the printing-office in Stamford-street as soon as printed, to Messrs. De La Rue's works in Bunhill-row, to be there bronzed and finished. More than 100,000 copies were thus produced—10,000 in time for the publication of the *Sun* on Coronation day.

Gold printing is now applied to numerous purposes in most countries. The following is the best method of producing good and bright results by letter-press printing:—Take the best printers' varnish, grind it to a thick consistency with the best sienna or brown umber, and reduce this with De La Rue's gold size, until it be of the thickness of thin treacle; ink the form in the usual manner, and when printed, apply the bronze by rubbing it gently over the article with cotton wool. If leaf gold or leaf metal is required, it must be laid on carefully; and then the dry sheets should be wiped, to clear them of the superfluous bronze or metal. The gold printing is much improved by its being passed over polished steel plates between powerful rollers.—*From the Report of Jury, Class XVII., of the Great Exhibition.*

MANUFACTURE OF KASHMIR SHAWLS.

FROM the limited nature of a report of this kind, a complete history of the shawl manufacture will not be looked for, however interesting it may be; but such is the importance of this beautiful fabric, and of its valuable trade, that a sketch of its origin, and of its rapid European development, may well precede our particular remarks upon its present position, and upon the examples now exhibited. The source from which this article has sprung is well known to be the ancient and beautiful fabric of the Valley of Kashmir, where the excellence of the raw material stands to this day unequalled, although its manufacture has been and is still carefully prosecuted in many parts of the world. The great beauty of the eastern tissue, considering the rudeness of the means of machinery employed, as compared with those which are now available to the European manufacturer, is a marvel in the eyes of the most experienced.

The superiority of the woollen fabrics of Kashmir is to be found recorded in many ancient eastern works. In the Mahābhārata, which narrates the transactions taking place at the palace of Gundesthira, the eldest of the Panda princes, about the period of two hundred years before Christ, it is stated, "that the people of Kaneboja (the northern districts surrounding Kashmir) brought cloths and skins as tribute." The former were made of wool, and embroidered with gold—being, in fact, shawls and brocades.

Again, in the Ayen Akbery, being the institutes of the Emperor Jilaleddeen Mohammed Akbar, sixth in descent from Timur (Tamerlane the Great), proclaimed emperor in 1556, we find the following interesting account of shawls:—

"His Majesty has ordered four kinds of shawls to be made:—1st. Toos affee (grey affee), which is the wool of an animal of this name, whose natural colour, in general, is grey, inclining to red, though some are perfectly white; and these shawls are incomparable for lightness, warmth, and softness. Formerly they were made of the wool in its natural state, but his majesty has had some of them dyed, and it is surprising that they will not take a red colour. 2nd. Sufed alcheh (white alcheh), which they also call terehdar. The natural colours of the wool are white or black, and they weave three sorts, white, black, and grey. Formerly, there were not above three or four different colours for shawls, but his majesty has made them of various hues. 3rd. Zerdozy, and others,* which are of his majesty's inventions. 4th. From being short pieces, he had them made long enough for jamehs (gown pieces.) The shawls are classed according to the day, month, year, price, colour, and weight; and this manner of classing is called missel. The mushrif, after examination, mark the quality of each upon paper affixed to its corner. All those brought into the palace on the day Ormuzd, of the month Ferirdine (10th March), are preferred to those received afterwards, of the same fineness, weight, and colour, and each is written down in order. Every day there are received into store the following kinds,† and from this account of one day may be formed an idea of what is done in the course of a year.

* Zerdozee, gold-leaved; goolabtum, rose-body; kesheede, worked; kulgha, pine-shaped; bandhemim, spotted; cheet, like chintz; alcheh (ignor); perzdar, with a nap.

† Toos, grey; sefed, white; lalzeeren, red-golden; narenjee, orange; berenjy, rice-coloured; kabzy, straw-coloured; gulpumbek, rose-cotton; sendely, sandal-wood; lanamee, almond; argbnwance, bright red; anaby, musk-perfumed; assely, pure; gulkaanee, cockcomb-colour; sileky, light; alifee, marked with silks or sprigs; festoky, sea-green; pezhgul, a Turkish wood; goolkhear, spotted; nezzybereen, spearhead; asmany, sky-colour; goolabek, rose; kulghy, pine-shaped; aby, watered; zytoony, olive-coloured; segevy, liver-coloured; zemroody, emerald; benefsa, violet; fakhtehy, ringdove colour.

"Formerly, shawls were but rarely brought from Kashmir, and those who had them used to wear them over the shoulders in four folds (*vide* ancient Scriptures), so that they lasted for a long time. His majesty has introduced the custom of wearing two shawls, one under the other, which is a considerable addition to their beauty. By the attention of his majesty, the manufacture in Kashmir is in a very flourishing state; and in Lahore there are upwards of a thousand manufactories of this commodity. They also make an imitation of shawl with the warp of silk and the woof of wool, and this kind is called 'mayan.' Of both kinds are made turbans, &c."

With this account before us, it is reasonable to suppose that varieties of every kind were introduced about this period; and the evident encouragement given to these improvements, doubtless, tended much to the progress of this trade, while these shawls continued to be a favourite article of dress, during the Mahomedan dynasties in particular. After their decline, it is probable that the troubled state of Upper India, and the general turbulence of the mountain character, had its effect in retarding the progress of a trade involving the labour of so many hands: but its absolute necessity as an article of wearing apparel to every well-dressed native of India, Persia, and parts of Turkey, effectually prevented the manufacture from falling into decay, even at the worst of times. It was once said that there were upwards of 30,000 looms at work; but Strachey, who visited the country in 1809, gives 16,000 as the number at that time. The value of the whole produce was estimated at thirty-five lacs of rupees; but Moorcroft, who was there in 1822-23, says it has declined to half that sum. A renewed vigour has been instilled into it within the last thirty years by the constantly increasing demands of the European markets; and the present improved state of Government, of social rights and intercourse, in that part of India, will of course add greatly to the energies of a persevering and pains-taking people, and will most probably give early proofs that his resources have never been fully developed. The valley itself is now in the hands of Golab Singh, a chief who fully appreciates the value of the trade; but many of his measures are oppressive to the manufacturer, and some of the best makers are finding it to their advantage to settle in the neighbouring cities, under the British Government, where they are able, in perfect freedom, to push their trade to any extent. Umritzer and Lahore are already showing rapid progress in this trade, and there is no reason why their production, should not equal, in all respects, those of Kashmir; whilst the demand for Europe is entirely promoted by European agents residing there, for the express purpose of encouraging perfection in design, colour, and texture.

The activity of the present trade may be estimated from the following returns, procured from the firm of Ripley and Brown, the leading brokers in this trade:

	Imports.	Deliveries.	Exports.
In 1842	2,484	2,740	2,218
1843	2,726	2,992	2,293
1844	4,957	4,127	2,757
1845	7,981	5,411	3,860
1846	3,709	5,429	3,400
1847*	3,989	4,354	3,045
1848*	2,369	1,904	1,484
1849	1,183	3,311	2,408
1850	6,982	5,753	4,252
1851†	4,034	2,893	2,139

We find publications in France, "*sur la fabrication des châles*," which give the date of about 1800 as the period of the first introduction into France of the taste for this article of dress, and of their first importation from Egypt, where undoubtedly they had found their way from the eastern emporium chiefly through Persia. In England, however, the fashion had been earlier introduced by those connected with the East India Company's trade, and they were included in the periodical sales of prohibited goods, held at the East India-house as early as 1750. In 1787, we find they were admitted by our Custom-house upon payment of an *ad valorem* duty of 27½ per cent., which duty has been thus changed by various Acts and regulations:—

1812	£51 2s. 11d. per cent.
1813	62½ per cent.
1814	67½ "
1825	30 "
1842	7½ "
1846	5 "

The severe restrictions upon their importation, and their consequent costliness, induced the weavers of Norwich to make the first attempt at imitation of the Indian fabric; and we are informed that in 1784, Mr. Barrow, and Alderman Watson, of that town, succeeded in weaving the first Indian style of shawl, we believe, ever made in Europe. The process was too slow and unprofitable to induce them to continue their operations; but Mr. John Harvey, of the same town, followed up the enterprise with Piedmont silk warp and fine worsted shoot, the designs being worked in by a process of darning by hand. No great progress however appears to have been made in this tedious and expensive process, and not till 1805 was an entire shawl produced from the loom in

* Troubles in Europe and in India.

† Up to May.

Norwich. In Paisley and Edinburgh they took up the manufacture about the same time, but the former town has alone retained it, making India imitations now of real Kashmir wool thread, at very low prices, to a large extent.

In 1802, a commencement was made in Paris; and it is related that the enormous expense of 60,000 francs, expended in setting the loom prepared for the purpose, induced the immortal Jacquard to invent his wonderful process of working intricate designs with facility. In 1819 great success had been reached upon looms *à la tire*, with Kashmir wool imported for the purpose, and spun with great skill in France. Not earlier, however, than 1834, was the present process, called *spouliné*, which is the exact imitation of the Kashmirian, so introduced for working intricate designs, that one man with the Jacquard loom can produce the excellence now attained in Paris. In fact, we find the true Indian shawl there produced, but perfected by the addition of machinery, and sold at about a quarter of the cost in India, their range of prices being, for squares of full size, 25 to 600 francs, and for long shawls of full size, 50 to 1500 francs: 4,000,000 francs is given as about the value of the total production of these fabrics in France at the present time; that of Scotland cannot so easily be estimated, but it is very large, though the shawls are chiefly of a cheaper description, ranging from 7s. 6d. to 5l. per square, and 1l. to 15l. for long shawls. We have dwelt thus at length upon the productions of France and England, because of the greater development of the manufactures in these countries where it had been first introduced; but we find that within the last five years Austria, the States of the Zollverein, and Belgium, have been setting their looms upon similar produce; and with such excellent material at command, and such ingenious and industrious artisans, they may soon vie—in cheapness, at any rate—with either of their predecessors in the trade. There is a peculiarity in the character of a real Kashmir shawl, as well in originality of design as in solidity and durability, which, notwithstanding the enormous difference of cost, will retain its value in the eyes of those who can afford to pay it. The finer descriptions cannot be purchased in the valley under 300 to 1500 rupees for square, and 450 to 2000 rupees for long.—*From the Report of Jury in Class XV. of the Great Exhibition.*

THE ROYAL PANOPTICON OF SCIENCE AND ART.

THIS chartered institution is designed for scientific exhibitions, and for promoting discoveries in arts and manufactures. To carry out this intention, the council have called together men of the greatest eminence in their several professions, for the proper development of this truly national and important scheme; and it is gratifying to hear that the most lofty in science and the arts have readily responded to the invitation. Thus, for the first time in the history of our country will minds of the profoundest and most useful endowments be brought in systematic and friendly communion with the humblest devotees of enlightened knowledge. The recent and rapid advance of science has imperatively suggested the necessity of a temple permanently directed to the interests of the industrial classes, and such a temple we hope to find in the completion of the building in Leicester square. Its objects are "to promote the application of science to the useful arts; to instruct by courses of lectures, to be demonstrated by instruments, apparatus, and other appliances in the various departments of science and literature; to exhibit select specimens of work in the fine and mechanical arts, manufactures, and handicrafts, showing their progress to completion in the hands of the artisan and mechanic; to display the productions of nature and art, both British and Foreign; to illustrate history, science, and literature by pictorial views and representations, accompanied by music; and generally, to extend and facilitate a greater knowledge and love of the arts and sciences on the part of the public."

A great impediment to the success of mechanic and other institutions, particularly in the country, will be removed by the exertions of the Panopticon, it having been found that the funds of such societies are seldom sufficient to enable them to procure the apparatus and appurtenances proper for the illustration of their lectures, and that such lectures are consequently in a great measure divested of interest by the want of the necessary experimental elucidation; the council of the Panopticon proposes to form a large collection of apparatus suitable to lectures in every branch of natural and experimental science which will be lent out on hire upon very moderate terms—a suggestion of great utility, and one which has been seized by another institution, which it is hoped will work it out in its full integrity.

In addition to the usual routine of optical experiments, the council has secured for this institution an exhibition of a higher character in the patent optical diorama, a recent invention of Mr. Clarke, the inventor of the hydro-oxygen dissolving views. The scenic representations exceed

in size anything of the kind yet exhibited, and are quite divested of those chromatic imperfections which are inherent in the dissolving views as now exhibited, and which detract materially from their excellence. There is scarcely any movement in nature which may not be represented by this process, and it is anticipated that the optical diorama, under the co-operation of men of ability, will prove a powerful dispenser of useful knowledge.

The musical department of the institution is under the direction of Sir George Smart, and the council appear satisfied of the importance of taking a high standing in this branch of science. The building of an organ of surpassing power and compass, has been intrusted to Messrs. Hill, whose names are known as the builders of the organ at Birmingham. The one for the Panopticon will, it is said, exceed the provincial organ in all its attributes, and if so, it will be the finest in the metropolis.

Schools are to be formed, to illustrate practically, apart from the lectures, the leading features of astronomy, chemistry, optics, and mechanics. The steam-engine, the telegraph, the lathe, and the loom in all their modifications will here work their wonders; and as at this period general attention is so much drawn to the wonderful properties of electricity, the council have judged it desirable, for the more clear exhibition of such experiments, to build a gigantic machine with a plate of glass of ten feet in diameter, a size unprecedented in the annals of science, and all the scientific apparatus will be on a similar extensive scale.

It is intended that the laboratory should be practically efficient and placed under the direction of Sir David Brewster and others. There will likewise be a separate department for teaching mechanical engineering, including the principles and construction of agricultural implements, under the superintendence of a practical engineer. The steam-engine will be one of ten horse power, which the Messrs. Maudslay, Sons, and Field have handsomely undertaken to build at the mere cost of workmanship. These gentlemen, in order to promote the cause of inquiry, have likewise added an engineer's complete plant of tools.

Females in the middle ranks of life are to be taught various light trades, such as watchmaking, &c., to which they are eminently competent, and thus will an additional path be thrown open to them to attain a livelihood, now so truly difficult for even the most accomplished in the more elegant arts.

As the results of the commercial prospects of the undertaking are somewhat interesting, and derived from statistics bearing on the subject, it may be stated that it is calculated that the two exhibitions, morning and evening, will show an audience of 300 in the morning and 500 in the evening, giving an annual receipt for 311 days of 12,400l., at a shilling for each person, to which the council add for reserved seats, rents of stalls and standing, sales of catalogues, hire of apparatus, and sale of goods on commission, an amount of 4600l. per annum, making a total of 17,000l., against which they quote from 8000 to 9000l. as the expenses of the institution.

The capital has been nearly subscribed, and is in 10l. shares, one of which entitles its owner to free admission and the profits of the undertaking, which is an extremely comprehensive one, and in every respect an echo of the requirement of the times.

LES CANARDS (DUCKS). BY DECAMPS.

(SEE FRONT PAGE.)

THE name of this eminent artist is not yet so popular in England as it ought to be, owing to the difficulties of rendering, either in lithography or engraving, the principal merit of his magnificent pictures; yet his productions are familiar to every artist or amateur, as some of his works have already found their way into several of our best private collections. Decamps is not only a great colourist—the very best of the modern school, perhaps with one exception, viz., Diaz, unfortunately quite a new name in our artistical world—but he is, also, quite original. His style and subjects are his own entirely. He attempts, and always succeeds, in effects of light never attempted before. It is impossible to point out any master, ancient or modern, to whom he may be fairly compared. Thus, in the picture before us, a scorching Asiatic sun on the wall contrasted with the freshness of the water in the shadowed part, is one of the most felicitous efforts of art we, perhaps, ever witnessed. The only objection made by fastidious critics to his pictures, with some appearance of justice, is the abuse of what the French call *empatement*—the usual result of an over-rapidity of execution.



THE MURDER OF THE INNOCENTS.

BY G. F. WATTS.

(Prize Sculpture at the Royal Academy in 1847.)





